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Some Medicinal Plants Uses in Ethnical Group from Biratnagar, Eastern, Nepal

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Abstract

This paper aims to explore of medicinal plants and their uses for the local communities in Biratnagar Nepal. We have explained here 32 medicinal plants with their habitat and part used for medicinal uses. The plants were Collected through the direct visit in a different interval of time after that plants were identified 32 species were described as their medicinal value with their plant Parts. The used of medicinal value of the medicinal plant is great Knowledge of ethnical society.

Keywords: Ethnic group; Habitat; Local community; Medicinal plant; Nepal .

1. Introduction

Biratnagar is situated tarai region eastern part of Nepal which belongs to the 26°28'60"N

87°16'60"E. this is boarder of Indian state of Bihar. The use of plant s and plant product medicine could be traced a far back of the beginning of the human civilization. The earlier culture of medicinal plant found in “Rigveda”, which is written between the 4500-1600 BC. And supposed as oldest knowledge in human. The special of eight drugs of science of life and arts of healing [1]. Paudel and his colleagues [2] describe the *Valeriana jatamansii* , *Cinnmomum tamala* are the threatened habituated due to the degradation of over use. About 90% of the population in Nepal depends upon the local healer and Ayurvedic medicinal treatment, as they are less expensive and easily available, Beside these medicinal plants are export commodities and source of national income [3], The screening of the 50 medicinal plant was done by [4] which shows the linear concentration and optical density and, highly increase Malic acid and citric acids.

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The plant is used and surveyed 74 species as herbal immediate [5].the medicinal plant of Nepal used as the antibacterial activities that the plant work in Commercial Value for the world [6]. The main objective of the study is exploration of medicinal plant from Biratnagar eastern Nepal which have the critical scientific examination as providing detail Knowledge about the medicinal plants with their valuable use for local community.

Table1: Climate data for Biratnagar, Nepal

Month	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Average high °C	22.7	26.1	30.9	33.9	33.3	32.9	32.1	32.5	32.1	31.6	29.3	25.4
Daily mean °C	15.18	18.6	23.3	27.1	28.3	29.0	28.8	29.9	28.4	26.4	22.3	18.0
Average low °C	9.0	11.1	15.6	20.4	23.3	25.2	25.6	25.8	24.7	21.1	15.3	10.5
Average precipitation(mm)	11.7	13.2	13.2	53.1	186.0	302.4	530.8	378.3	298.8	91.8	5.9	6.6

Source: Department of Hydrology and Metrology (NEPAL)

2. Material and methods

The plant were surveyed through the direct visit in different interval of time. The medicinal uses of the plant was asked from the ethnical society and, some Ayurveda doctors who used that plant for initial home used for patient. For Identification of the plant, Various Monograph, Journal and Tribhuvan University, Central Herbarium .The plant describe as their mediational value with family identification. The Plants were describe in the form of Botanical name, Family, Habitats, Parts, Uses and Mode of Uses.

3. Results

Total 32 medicinal plants were described in terms of their botanical name, family habitat uses in different parts of the plants.

Table 2: Botanical name, Family, habitats and mode of use in medicinal value local community of Biratnagar, Nepal.

	Botanical Name	**Family**	**Habitat**	**Part(s)**	**Uses**	**Mode of uses**
1.	*Achyranthus aspera*	Amaranthaceae	Herb	WP,R,S	Toothache, asthma, indigestion	Juice, Paste

2	*Aegel marmelos* (L.)	Rutaceae	Tree	Fruits	Fever, digestive, astringent, diarrhea, dysentery	Juice, Pulp
3	*Alovera* (L.) Burm. f.	Liliaceae	Succulent herb, Cultivated	Leaf	Leaf pulp or juice is applied in skin burns	Juice, Pulp
4	*Artemesia vulgaris*	Compositae	Herb	WP	Leaf juice is applied in skin diseases ,Infusion of whole plant is used for bathing to treat scabies	Juice, Pulp
5	*Asparagus racemosus* Wild	Liliaceae	Climber	R	Diarrhea, fever, tonic	Juice
6	*Azadirachta indica* A. Juss.	Meliaceae	Tree,	Leaf & Seed	Extract of fresh leaves or decoction of leaves is used to wash skin to treat scabies and other skin diseases, toothache, gum diseases	Juice, Pulp
7	*Calotropis gigantea* (L.)Dryand	Asclepiadaceae	Undershrub	Leaf	root bark is diaphoretic and expectorant, diarrhea and dysentery	Latex
8	*Carica papaya L*	Caricaceae	Herb	Stem	toothache, scorpion bite, dysentery	Latex
9	*Chenopodium album*	Chenopodiaceae	Herb	WP	Digestion, kidney stone, rheumatism	Juice

10	*Cuscuta reflexa Roxb.*	Convolvulaceae	Dodder	WP	Jaundice, headache, rheumatisms stomachic	Juice ,Paste
11	*Cyathoelina purpurea*	Compositae	Herb	roots	to relieve stomach pain	Juice
12	*Cynodon dactylon* (L.) Pers.	Poaceae	Herb	WP	Paste of leaves is applied for healing Cuts and wounds.	
13	*Desmodium caudatum* (Thunb.) DC.	Fabaceae	Shrub	Whole plant	Waist pain	Decoction
14	*Dolochos lablab* L.	Leguminosae		Leaf	Skin diseases	Juice
15	*Eclipta prostrata* L.	Compositae	Herb	leaf	Cuts, wounds	Juice
16	*Eleucine indica*	Poaceae	Herb	WP	influenza, hypertension, oliguria and urine retention	Juice
17	*Ficus religiosa* L.	Moraceae	Tree	B,L,Fl,La	Astringent, gonorrhea, scabies, diarrhea, dysentery	Juice, Paste
18	*Ipomoea purpurea*	Convolvulaceae	Climber	seeds	treatment of edema, oliguria, ascariasis and constipation	Juice, Paste
19	*Leucas ciliata*	Labiatae	Herb	S, Fl	Juice of the flowers can also be used for intestinal worm	Juice
20	*Lepidagathis incurva* Buch.Ham. ex D. Don..	Acanthaceae	Herb, wild,		Fresh juice of leaves is applied to stop bleeding from cuts while working in fields.	Juice

21	*Mimosa pudica* L.	Fabaceae	Herb, wild,	Leaf	Fresh leaf juice is dropped in cuts and wounds for quick healing.	Juice
22	*Phyllanthus emblica* Linn.	Euphorbiaceae	Tree	Fruits	Dysentery, constipation, diarrhea	Juice
23	*Physalis peruviana* L.	Solanaceae	Herb	Leaf	To treat sore throat and abdominal pain	Juice
24	*Piper longum*	Piperaceae	Climber	Frits	Asthma, bronchitis, fevers, diarrhea, piles	Juice
25	*Salvia coccinea*	Lamiaceae	Herb	Leaf	Common cold, bronchitis, tuberculosis and Menstrual disorders.	Juice
26	*Sida cordata* (Burm f.) Borss.	Malvaceae	Herb, wild	R,S	Root/stem paste is applied externally to take Out pus from boils.	Juice
27	*Solanum nigrum*	Solanaceae	Herb	L	Stomachic problems	Juice
28	*Spillanthus calva* Dc.	Asteraceae	Herb	Leaf	Toothache, affections of throat and gums, stomatitis, paralysis of tongue,	Paste
29	*Sphaerantus indicus* L.	Asteraceae	Herb	Fl	Jaundice, cough	Juice
30	*Tamarindus indica* L.	Fabaceae	Tree	Fruit	Fever, constipation	Juice

31	*Vitex nigundo* L.	Verbenaceae	Shrub, wild,	Leaf	Leaf decoction is used to wash skin to cure scabies.	Juice
32	*Zingiber officinale*	Zingiberaceae	Herb	Rhizome	Stomachic problem	Decoction

Abbreviation: B=Bark, Fl=Flower, R=Root, L=Leaf, WP=Whole plant, S=Stem

4. Discussion

The rich in herbal flora of Nepal, Which have tremendous need for critical scientific examination [7].The some medicinal plant was describe from Argakhachi district by Paudel and his colleagues [2]. Plant domestication, and management in Nepal is past decades representing and shows that the high altitude plant are the aromatics. The medicinal plant is loss of commercial demands and exceeding supplies due to rapidly increasing population and declining crop productivity, the plant is also lost the harvesting and deforestation. The biochemical activity lost is determined by examine the 19 medicinal plants by Griggs and his colleagues [8]. Most of the research was done in *Swertia chirayita* . The plant become conserved as sustainable use [9].

In general, the value of Medicinal plant gives us potential income of Nation. The Knowledge of medicinal value of Medicinal plant makes to proper use of disease which shows at first Aids. Highly potential uses of herbal medicine in Nepal causes the destruction of medicinal plants in Biratnagar, Nepal. Due to migration, overpopulation and plant destruction plant became threatened so, need special attention for traditional herbal medicine to be exposit sustainably.

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References

[1]. Rastogi R, Mehrotra B, Glossary of Indian Medicinal Plants. New Delhi, India: National institute of science communication, 2002.

[2]. Paudel N, Paudel LP, Ghimire U, Das BD., Archichlamydae and Sympetale Flora of Arghakanchi District, Western Nepal. International journal of Life Sciences Research, 2017; 5(3):73-81.

[3]. Manandhar,NP. Medicinal plants of Nepal Himalya .Ratna Pustak bhandar, Kathmandu, Nepal.1980

[4]. Ma TS, Robert R., Micro Chemical investigation of medicinal plants. Microchica Acta; 1968; 56 (1):167-181.

[5]. Ranjitkar S, Rajbhandary S., Nepal journal of plant science.2008; 2: 56-65.

[6]. Pokharel K, Dhungana BR, Tiwari KB, Shahi RB, Sharma BY, Shrestha RK, Shrestha D, Poudel BH.

Antibacterial activities of medicinal plants of Nepal. Journal of Institute of Medicine. 2009; 26:30(2).28-32.

[7]. Sing MP, Malla SB, Rajbhandari SB, Manandhar A., Medicinal plants of Nepal-retrospects and prospects .Economic Botany.1979;33(2):185-198.

[8]. Griggs JK, Manandha G, Tower RS, Taylor R., The effect of storage on the biological activity of medicinal plants from Nepal. Journal of Ethnopharmacology.2001; 77(2-3):247-252.

[9]. Bhowmik PC, Jha S, Shetty K., Quantification of major phytochamicals of swertia chirayita ,a medicinal plant from Nepal. Ecoprint An international journal of Ecology.2010; 17: 59-68.