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Research Article

Medicinal Plants Survey in Dharashiv District of Balaghat Region in Maharashtra

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Abstract

India is one of the diverse countries in the world, rich in medicinal plants. From time immemorial scholars like Charka, Baradhwaj, Athreyan, Agnivesha, Dhanyandhari, Shushruthan, Wakbadan and Bharathduja etc. have studied and explored the possibility such a diversity for human welfare. In Maharashtra,in rural areas of Balaghat region, people are familiar with medicinal plants.Balaghat region occupied in district like Ahmadnagar, Beed, Latur, Dharashiv, and Solapur. In this paper,people from rural as well as tribal communities were interviewed.All information regarding medicinal plants and their role for treating human diseases were collected.This survey was done during October 2019 to April 2020 in the area of Dharashiv district.

INTRODUCTION

Ayurveda-the science of life, prevention and longevity, is the oldest and most holistic of comprehensive medical system available. It was placed in written form over 2000 years ago. Ayurveda is said to have been first complied as a text by charaka and renamed as *Charaka Samhita* (completed by Dhridhabala). The concept of medicines envisaged in the Ayurveda comes from the monumental scripture called *Ashtanga hridaya* and *Sahasrayoga*, Gayatri R. (2008).

Medicinal plants by definition are used in health care many of the world population cannot afford medicine, which are main plant based. In India, the main traditional systems of medicine include Ayurveda, Unani and Siddha use over 7,500 plant species have been reported. Traditional healers provide considerable information about the use of many plants or plant parts as medicine. It has been estimated by the world's health organization (2003) that 80% population of the developing countries is unable to afford pharmaceutical drugs and relies on traditional medicine to meet their daily health requirements. Plants are logical sources for new drugs discovery and currently many thousands are being screened for biological activities in order to develop from plant species and future demands should be met from cultivated sustainable species.

Balaghat region is the series of hill in Maharashtra state. It originating in the Western Ghat at Harichandra ranges. It extends southeastward for about 200 miles (320 K. M.) to the border of Maharashtra and Karnataka. Its width varies from 3 to 6 miles (5 to 9 K. M.). Balaghat hills have elevations of 1800 to 2700 feet (550 to 825 meters). It occupies Ahmednagar in the west; it occupies Ahmednagar in the west, border of Beed district in the east. It has 2500 feet height from the sea level. Beed district occupies major portion in Balaghat region, Beed District spreads 10615.3 Sq. K.ms. Entire Districts of Latur is Situated on the Balaghat Plateau. It is 540 to 638 meters from sea level. Area of Latur District is 7372 Sq. K.ms.

The most of the Osmanabad District is surrounded by small mountains called Balaghat. Bhum, Washi, Kalamb, Osmanabad, Tuljapur Tahsil lie in the range of this Balaghat Mountains some part of major rivers like Godavari and Bhima come under this District. Part of Solapur district. Balaghat mountain range is an eastward spur of Western Ghats of India(Sahyadri Mountain) running north-west to south-east in Maharashtra.

It is located from N $18^0$47’40.26” to $18^0$32’29.28” and E $75^0$20’26.90” to $76^0$48’56.18” Latitude in the basins of river Manjra, Sindphana and Sina and their tributaries mainly spreads over Ahmednagar, Beed Latur, Osmanabad and Solapur districts. Balaghat occupies an area about 18,111.34 km^2 in Maharashtra.

The entire Balaghat region is situated at an average height ranges between 610-792 m above mean sea level, sloping towards the south and east, forming the water divide between the Godavari River and Krishna river valleys. Except the southern and western parts of the Balaghat region, which are drained by the tributeries of the Bhima River, the rest of the region is drained by the Manjra and Sindhphana river and their tributeries belonging to the Godavari system.

MATERIALS AND METHODS

The present study was based on the extensive field surveys was done by frequently arranged collection tours to different villages of the Balaghat region during different seasons, winter, summer and rainy seasons of the years from July 2012 and continued up to July 2016. In four years frequent visit, where made in order to cover different locality in Balaghat region. During survey participatory interview tools including group discussion informal meetings questionnaire, survey and field observation were used for primary data collection survey were done in Balaghat. Bhum, Washi, Kalamb, Osmanabad, Tuljapur, Naldurgh,

The gathered information was documented and analyzed for various parameters collection of fresh plant samples was done and identified with help of different floras and books. Medicinal plants, Jain S. K. (1968). Flora of Presidency of Bombay, I-III by T. Cooke, Flora of Osmanabad - V. N. Naik (1979), Flora of Marathwada - V. N. Naik (1998), Tree flora of Balaghat ranges of Maharashtra - Gaikwad S. P. & R. D. Gore (2015), Flora of Kolhapur District - S. R. Yadav and M. M. Sardesai (2002) and Flora of Solapur District - Gaikwad

S. P. & K. U. Garud (2015), Flora of Beed District Rothe S. P. (1984). Some materials thus collected was properly processed and finely made in herbarium specimen.

RESULTS & DISCUSSION

During investigation a total 50 families were recorded with their botanical name, family, local name parts used method of preparation and traditional uses.

Sr. No.	Botanical Name	Family	Common name	Plant parts used	Diseases
1	*Abrus precatorius* Linn	Fabaceae	Gunj patta	Leaves.	Sore throat
2	*Acacia catechu* (Roxb. Ex Rottl.) Willd.	Mimosaceae	Khair, Kattha	Bark	Diarrhoea, Cough, Skin wounds and intermittent fever.
3	*Achyranthes aspera* Linn.	Amaranthaceae	Aghada	Leaves and seeds	Scorpion sting, Kidney stone, Diarrhoea and dysentery and Snake bite.
4	*Adansonia digitata* Linn.	Bombacaceae	Gorakh Chinch	Seeds	Intermittent fever
5	*Adiantum capillus-veneris* Linn.	Adiantaceae	Kalarajhans	Leaves	Jaundice and hepatitis , excess white discharge during menstruation
6	*Adhatoda vasica* Nees	Acanthaceae	Adulsa	Leaves	Asthma and cough
7	*Andrographis paniculata* (Burm f. Wall.	Acanthaceae	Kade Chirait	Entire plants	Pitta
8	*Aegle marmelos* (L.) Corr**.**	Rutaceae	Bel	Root, Leaves and Fruit	Diarrhoea, dysentery and intestinal worms.
9	*Ailanthus excelsa* Roxb.	Simaroubaceae	Maharuk, Ghod-limb	Bark	Jaundice
10	*Albizzia lebbeck* (L.) Willd.	Mimosaceae	Shirish	Bark	Tooth ache and gum infection
11	*Aloe barbadensis* Mill.	Liliaceae	Korphad	Leaves	Burn wounds and Asthma
12	*Allium cepa* Linn	Alliaceae	Kanda, Piaz	Bulb	Skin disease and epilepsy
13	*Allium sativum* Linn.	Alliaceae	Lasun	Flakes	Cold, cough, appetizer and ear ache
14	*Alstonia scholaris* (L.) R. Br.	Apocynaceae	Saptaparna, Satvin.	Bark	Diarrhoea, stop bleeding wounds & asthma
15	*Amaranthus spinosus* Linn.	Amaranthaceae	Katemath	Leaves & entire plant	Inflammation and Abscess
16	*Annona squamosa* Linn.	Annonaceae	Sitaphal	Roots & Seeds	To cure unripe warts
17	*Asparagus racemosus* Willd.	Liliaceae	Shatawari	Rhizome	Increase breast milk, reduce high blood pressure and diarrhoea
18	*Argyreia nervosa* (Burm F) Boj.	Convolvulaceae	Samudra shok	Leaves	Diabetes
19	*Aristolochia bracteata* Lamk.	Aristolochiaceae	Kidamari	Leaves	Snake bite
20	*Azardirachta indica* A. Juss.	Meliaceae	Kadu limb, Neem	Bark Leaves & flowers	Diabetes, skin disease and intestinal problem
21	*Baccopa monnieri* (L.) Wettst.	Scropulariaceae	Neerbrahmi	Entire plants	Cough and blood purifier
22	*Balanites aegyptiaca* (L.) Del.	Balanitaceae	Hingan Bet	Fruit and seeds	Bur sores and skin disease

23	*Barleria prionitis* Linn.	Acanthaceae	Koranti	Entire plants	Tooth ache and paralysis
24	*Biophytum sensitivum* (L.) DC.	Oxalidaceae	Lajalu, Lajari	Entire plants	To stop nose bleeding
25	*Boerhavia diffusa* L.	Nyctaginaceae	Punarnawa, Khapara	Roots & Leaves	Weak in eyesight
27	*Boswellia serrata* Roxb.	Burseraceae	Salai	Gum	Piles, ulcers, jaundice and asthma
28	*Butea monosperma* (Lam) Taub.	Fabaceae	Palas	Bark, gum, flower and seeds	Diarrhoea , dysentery, diabetes , bone fracture and ring worm
29	*Caesalpinia bonduc* (L.) Roxb.	Caesalpiniaceae	Gajga, Sagargota	Seed	Sore throat, lukewarm, diarrhoea and joint pains
30	*Calatropis gigantea* (L) R. Br.	Asclepiadaceae	Rui, Ruchki.	Leaves	Head ache
31	*Calatropis procera* (L) R. Br.	Asclepiadaceae	Rui, Ruchki.	Leaves, flower and Roots	Ear ache, intermittent fever, abscess and reduce swelling
32	*Carica papya* Linn.	Caricaceae	Papai	Leaves & Fruit latex	Cough, cold, abdominal pains and tooth ache
33	*Carissa carandus* Linn.	Apocynaceae	Karawand	Fruits	Diabetes and indigestion
34	*Caralluma adscendens* (Roxb.) R. Br.	Asclepiadaceae	Makad sing	Tender shoot	Acidity and induce profuse lactation
35	*Cassia auriculata* Linn.	Caesalpiniaceae	Tarwad	Leaves	Reduce swelling
36	*Cassia fistula* Linn.	Caesalpiniaceae	Bahava, Amaltas.	Fruits	Intestinal worm and black fever
37	*Cassia tora* Linn.	Caesalpiniaceae	Tarota	Leaves, & Seeds	Skin disease like ring worm and diarrhoea
38	*Celosia argentea* Linn.	Amaranthaceae	Kurdu	Seeds	
39	*Centella asiatica* (Linn.) Urb.	Apiaceae	Bramhi	Leaves	Dysentery
40	*Citrus medica* Linn	Rutaceae	Kaaghzi limbu.	Fruit	Vomiting , scabies and severe itching
41	*Citrullus colocynthis* (L.) Schrad	Cucurbitaceae	Indrayan	Fruit	Irregular menstruation, abdominal pains and scorpion sting
42	*Cissus quandrangularis Linn.*	Vitaceae	Hadsakhal, Kand vel	Entire plants	Bone fractured
43	*Clitoria ternatea* Linn.	Fabaceae	Gokarna	Leaves	Joint pains
44	*Cleome viscosa* Linn.	Cleomaceae	Piwali tilwan	Leaves	Head ache
45	*Clerodendron multiflorum* (Burm. F.) O	Verbenaceae	Taklan, Takalni, Eran	Leaves and roots.	Reduce swelling and chest pains
46	*Coccinia grandis* (L.) Voigt.	Cucurbitaceae	Tondale	Roots, leaves & fruit	Abscess
47	*Cocos nucifera* Linn	Arecaceae	Naral, Narial	Fruit shell	Tooth ache
48	*Cocculus hirsutus* (L.) Diels	Menispermacea e	Vasan wel	Leaves	Loose motion
49	*Colocasia esculenta* (L.) Schott	Araceae	Alu	Entire plants	
50	*Commelina benghalensis* Linn.	Commelinaceae	Kena	Younger leaves	General weakness

51	*Cordia dichotoma* Forst.	Ehretiaceae	Bhokar	Bark	Irregular menstruation Limb and bone fracture
52	*Cucumis callosus* (Rottl.) Cogn. Roxb.	Cucurbitaceae	Shendadi, Kateri chitravali	Fruit	Abdominal pains, jaundice and tooth ache
53	*Cucumis sativus* Linn.	Cucurbitaceae	Kakadi and Khira	Fruit	Jaundice and kidney disease
54	*Cyamopsis tetragonoloba* (L. Tabu	Fabaceae	Gawar	Fruits	Night blindness
55	*Cynodon dactylon* (Linn) Pers.	Poaceae	Durwa, Harali.	Leaves	Loose motion with blood
56	*Cymbopogon citratus* (DC) Stapf	Poaceae	Gavatichaha	Leaves	Cold
57	*Cyperus rotundus* Linn	Cyperaceae	Nagarmotha, Laval	Rhizome	Dermatitis
58	*Dendrocalamus strictus* Nees	Poaceae	Velu.	Seeds	Rheumatism
59	*Diospyros melanoxylon* Roxb.	Ebenaceae	Temru, Tendu, Temburni	Fruit	Diarrhoea , dysentery and intermittent fever
60	*Dioscorea bulbifera* Linn	Discoriaceae	Dukkar Kand	Rhizome	Increase lactation
61	*Dregea volubilis* (L.F.) Benth. Ex Hook.	Asclepiadaceae	Hiran Dodi	Leaves latex	Cold
62	*Drimia indica* (Roxb.) Kunth	Liliaceae	Ran Kanda, Jungli piaz	Bulb	Abdominal pains
63	*Eclipta alba* (L.) Hassk	Asteraceae	Maka	Leaves and flower	Scabies and hair fall
64	*Evolvulus alsinoides* Linn	Convolvulaceae	Vishnu Kranta	Entire plants	Cough, cold, asthma and bronchitis
65	*Euphorbia hirta* L	Euphorbiaceae	Dudhani, Dudhi	Leaves	Asthma, bronchial affection and dysentery
66	*Ficus benghalensis* Linn	Moraceae	Wad	Root , stem latex &leaves	Normal bone fracture and burn
67	*Ficus* racemosa Linn.	Moraceae	Umbar	Root, leaves & stem latex	Norman bone fracture
68	*Ficus religosa* Linn	Moraceae	Pimpal	Bark & leaves	Tooth ache, Abscess and jaundice
69	*Gloriosa superba* Linn,	Liliaceae	Khdya naag, Kal lawi	Root & stem	Easy delivery of pregnant women
70	*Glossocardia bosvalle* (L.F.)DC.	Asteraceae	Khadak shepu, puneri	Leaves	Promote healing of sores and wounds

Conclusion

The main threats to the conservation of medicinal plants in the area are unsustainable harvesting by the local people, illegal collection inside the forest area, grazing in high pastures, collection of premature plants and collection of whole underground parts.

Scientific studies may elaborate the prospects of growing more and more medicinal plants successively. By order proper management of medicinal plants remarkable improvement may be made on the earning of foreign exchange for the country.

Considerable amount of information on the traditional uses of plants appears available with the people of the Balaghat region. It is feared that due to ready availability of medicine in modern period, knowledge of traditional medicinal plants may be lost in course, senior villagers expressed their fear as the coming generations ignore their knowledge and experience.

Documentation of tribal knowledge is the most difficult and intellectually challenging task, as it involves identifying knowledgeable people, village elders, tribal chiefs, traditional health practitioners (THPs) Communities etc. and securing their cooperation.

Indigenous knowledge lacks due recognition and adequate modern documentation and is fast diminishing. An urgent action is needed to document this traditional Knowledge or indigenous Knowledge systems.There is an urgent need of Ayush hospitals in rural areas for intensive and critical evaluation of all medicinal claims and documents them for health care.

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