MEDICINAL USES OF SOME THREATENED SPECIES OF WILD HERBAL PLANTS FROM BILASPUR DISTRICT

U. TEWARI\textsuperscript{a1}, A.N. BAHADUR\textsuperscript{b}, P. SONI\textsuperscript{c} AND S. PANDEY\textsuperscript{d}

\textsuperscript{ab} Department of Botany, Govt. E. R. Rao P.G. Autonomos Science College, Bilaspur (C.G.),
\textsuperscript{cd} Department of Microbiology, Vipra Mahavidyalaya, Bilaspur (C.G.)

ABSTRACT

Bilaspur district is very much riched with large number of wild herbal medicinal plants. These plants are grow everywhere found throughout the year, but due to environmental pollution, increase population, increase urbanization and specially heavy demand of medicinal plants people were harvested without any concern for regeneration and conservation, so the particular species become threatened conditions. These species are therefore either kept in protection zone or conserve in herbal gardens.

In the present investigation 15 threatened wild herbal medicinal species were collected from different area within Bilaspur district. Out of these identified species most of the plants belongs to family Asteraceae, Asclepiadaceae and Fabaceae. Present investigation revealed that the villagers and tribal’s used traditionally these plants species against various diseases like diabetes, hair fall, skin disease, fever, teeth pain, dysentery, heart disease and other diseases. Generally leaves, bark, roots, seed and some time whole plants are used for the treatment of diseases. Herbarium of these plants have been prepared, noted with entire information like Botanical name, local name, family and plant part used with their doses.

Key words: - Threatened species, wild herbal plants, Bilaspur district.

The vegetation of India is one of the richest of the world due to the wide range of climatic condition and environment. Our country is very much riched with large number of trees, shrubs and herbal plants. The ethnic and rural people of India have traditional knowledge of medicinal uses of plants growing around them. These plants are easily available and with no fear of any side effects, specially wild herbal plants used by the tribal’s and villagers.

These wild plants meet most requirements from food to medicine, both men and domestic animals. The use of large number of wild plants species to fulfill diverse requirement is largely due to the prevalence of diversity of vegetation in this subcontinent with dense humid tropical and temperate forest (Jain 1981).

In central region of India constituting Madhya Pradesh and Chhattisgarh, large numbers of wild plants were reported to be commonly used as medicine. Some plants are used singly, where as others are used in collectively. Similarly certain plants are considered useful for only one disease where as few are used as multiple disease. Generally wilds medicinal plants are grow everywhere found throughout the year or particular season but due to environmental pollution, changes in climate, increase population, increase urbanization and specially heavy demand of medicinal plants people were harvested without any concern for regeneration and conservation, so particular plant species become threatened(endangered, critically endangered, vulnerable or near threatened) level(IUCN 2004).

During present investigation Bilaspur district in Chhattisgarh was selected for medicinal studies of herbal plants. Most of the area of Bilaspur district is covered by large number of herbal plants has been perform throughout the natural vegetation area. The tribal people, villagers used these plants as food, fodder and medicinal purposes; they have good knowledge about herbal medicinal plants and their uses for different types of diseases. But today various important medicinal herbal species become threatened condition due to increase urbanization, pollution as well as heavy demand of these plants species.
The present paper has been restricted to the medicinal uses of only 15 such threatened species have been properly identified and stored as herbarium.

MATERIAL AND METHODS

The study was conducted at some villages of Bilaspur district of Chhattisgarh. Geographically Bilaspur located at 25° 5’ N Latitude and 82° 12’ E Longitude. The height is 292.00 m above M.S.L. It is situated in the eastern part of the Madhya Pradesh, almost in the centre of the region as Chhattisgarh. The plants were collected in the Botanical Laboratory either in the form of herbarium sheets or museum specimens. The detailed information pertaining to their Botanical name, local name, family name and medicinal uses. All information’s regarding the usages of plants for treating various ailments and diseases was collected by directly interviewing elderly learned and experienced persons of rural people of the villages.

The identifications of plants were done using the following references:-
1. Flora of British India by Hooker (1875)
2. Taxonomy of Vascular plants by Lawrence George (1964)


RESULT AND DISCUSSION

15 Threatened species of wild herbal medicinal plants by local people of villages of Bilaspur district in their day to day life to cure various ailments have been documented along with their uses, mentioned in for going table.

A single species was used to cure more than one disease. Plants are very useful for dysentery, Jaundice, fever, hair fall, eye infection, cough, joint pain, skin diseases, snake bite and diabetes. There are two wild medicinal plant belonging to the family Asteraceae, two plants belongs to family Asclepiadaceae, two plants belongs to family Fabaceae and other plants belongs to family Apocynaceae, Araceae, Aristolochiaceae, Convolulaceae, Costaceae, Euphorbiaceae, Liliaceae, Nyctaginaceae, and Verbinaceae.

Study reveals that 6 wild medicinal plants were found to be endangered (En) 4 were Vulnerable (Vu), 4 were near threatened (NT) and 1 was critically Endangered (CR). These species are therefore kept in protection zones or conserve in herbal gardens.

Table: - List of Threatened plant species used in the treatment of various ailments in Bilaspur district

<table>
<thead>
<tr>
<th>S. No</th>
<th>Scientific Name</th>
<th>Local Name</th>
<th>Family</th>
<th>Status in C.G.</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Acorus calamus L.</td>
<td>Buch</td>
<td>Araceae</td>
<td>En</td>
<td>(i)Leaf pastes apply on head useful for headache.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(ii)100 ml. juice taken with water for cough specially for children.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(iii)2gm. plant power taken with 120 gm. hing (Asafoetida) for intestinal worms.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(iv)Plant is useful mental problem and epilepsy.</td>
</tr>
<tr>
<td>2</td>
<td>Anacyclus pyrethrum Dc.</td>
<td>Akarkara</td>
<td>Asteraceae</td>
<td>Vu</td>
<td>(i)Slightly warm pastes of root apply on head for headache.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(ii)Juice of plant taken with juice of bhaumhi (water hyssop) is useful for epilepsy.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(iii)Juice of plant mixed with juice of</td>
</tr>
<tr>
<td>No.</td>
<td>Species</td>
<td>Common Name</td>
<td>Family</td>
<td>Use</td>
<td></td>
</tr>
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</tr>
</tbody>
</table>
| 3   | *Andrographis paniculata* (Burm.f.) | Kalmegh        | Acanthaceae    | (i) The plant is used for malaria fever and as liver tonic.  
(ii) 2-3 gm. dried herb taken daily when suffering from cold.  
(iii) Plant extract have antifungal activity.  
(iv) Leaf juice is useful for diabetes and as blood purifier. |
| 4   | *Aristolochia indica* L.         | Ishwarmool     | Aristolochiaceae | (i) Root paste taken with honey for white leprosy and dropsy.  
(ii) Root powder taken with black pepper for cholera and diarrhea.  
(iii) 1 to 2 gm. root or stem powder taken with pepper and ginger is useful for any bowel complaints for children.  
(iv) Fresh juice of leaves is very good antidote to bites of poisonous snake. |
| 5   | *Asparagus recemosus* wild.     | Satavar        | Liliaceae      | (i) Young leaf fried with ghee and taken twice a day for night blindness and slipping problem.  
(ii) Root boil with sugar and water taken twice or thrice a day for fever, weakness and blood pressure.  
(iii) 10 gm. root powder taken with milk, it increases mother milk.  
(iv) Juice of root taken with sugar for urinary problems. |
| 6   | *Boerhavia diffusa* L.          | Punarnava      | Nyctaginaceae  | (i) 50 ml. juice of plant taken in night for slipping problem.  
(ii) Fresh leaf juice very useful heart problem.  
(iii) Juice of leaves useful for dropsy.  
(iv) Juice of leaves taken with milk for health problem. |
| 7   | *Clerodendrum serratum* L.      | Bharangi       | Verbenaceae    | (i) Paste of root taken with rice water for swelling of neck.  
(ii) 2-3 gm. leaves boil with 400 ml. of water for intestinal worms.  
(iii) Leaf juice is useful for malaria.  
(iv) The plant is useful for keratin level of urine. |
| 8   | *Clitoria ternatea* L.          | Aparajita      | Fabaceae       | (i) Juice of leaves apply in side nose for migraine.  
(ii) 500 mg. seed powder taken twice a day for jaundice and liver swelling.  
(iii) 10 gm. plant juice mixed with 10 gm. misri (rock sugar), taken twice a day for excessive bleeding.  
(iv) 1-2 gm. seed powder taken milk useful for child abdomen pain. |
| 9   | *Convolvulus microphyllous* sieb. | Shank pushpin  | Convolvulaceae | (i) 3-4 gm. plant powder mixed with honey and taken with milk for increase memory power and body weight.  
(ii) Juice of leaves helpful for mental disorder.  
(iii) Juice of leaves useful for diabetes. |
<table>
<thead>
<tr>
<th></th>
<th>Species Name</th>
<th>Common Name</th>
<th>Family</th>
<th>Threat Status</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td><em>Costus speciosus</em> smith</td>
<td>Keokand</td>
<td>Costaceae</td>
<td>Vu</td>
<td>(i) Rhizomes are very useful for skin disease, leprosy, asthma and anemia. (ii) The plant is useful for rabies dogs. (iii) The plant is reported to keep snake away. (iv) Rhizomes are used in rheumatic pain.</td>
</tr>
<tr>
<td>11</td>
<td><em>Eclipta alba</em> (L.) Hassk</td>
<td>Bhringraj</td>
<td>Asteraceae</td>
<td>NT</td>
<td>(i) Juice of plant applies on head for hair problems. (ii) 2-3 spoon juice of plant taken twice a day for typhoid. (iii) 20 gm. of plant power taken with honey or water for jaundice. (iv) 1 spoon fresh juice of leaves taken with water twice or thrice a day for dysentery.</td>
</tr>
<tr>
<td>12</td>
<td><em>Gymnema sylvestris</em> R. Br.</td>
<td>Gurmar</td>
<td>Asclepiadaceae</td>
<td>En</td>
<td>(i) The plant reduces blood sugar level. (ii) Leaf extract reduces high cholesterol level anemia and digestion. (iii) Root paste applied to the wounds of snake bite. (iv) Root power is used enlargement of spleen.</td>
</tr>
<tr>
<td>13</td>
<td><em>Hemidesmus indicus</em> (L.) R. Br.</td>
<td>Anantmool</td>
<td>Asclepiadaceae</td>
<td>Vu</td>
<td>(i) Latex of fresh young leaves mixed with honey applies on eyes for eye infection. (ii) Leaves are useful for teeth ach. (iii) 2-3 gm. root paste taken with water for abdomen pain. (iv) 2 gm. bark of root mixed with 10 black pepper, taken seven days for jaundice.</td>
</tr>
<tr>
<td>14</td>
<td><em>Rauwolfia serpentina</em> L.</td>
<td>Sarpgandha</td>
<td>Apocynaceae</td>
<td>CR</td>
<td>(i) The plant is used as treatment of sanity insomnia and snake bite. (ii) The plant used as mental illness like trauma and hysteria. (iii) The plant used as antidote of snake bite. (iv) Juice of leaves cures hypertension.</td>
</tr>
<tr>
<td>15</td>
<td><em>Tephrosia perpuria</em> L.</td>
<td>Sarphonk</td>
<td>Fabaceae</td>
<td>En</td>
<td>(i) 10 gm. root power taken with butter milk for swelling of spleen. (ii) Seed oil is useful for skin disease. (iii) Leaf juice is useful for leprosy. (iv) 10 gm. seed power taken with cold water to reduce body heat.</td>
</tr>
</tbody>
</table>

Categories: CR= Critically endangered, En= Endangered, Vu= Vulnerable, NT= Near Threatened

REFERENCES


