Indian J.Sci.Res. 12 (2): 111-115, 2017 ISSN: 0976-2876 (Print)
ISSN: 2250-0138(Online)

# SURVEY OF INDIGENOUS PLANT FLORA OF BHILAI TOWNSHIP

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## ABSTRACT

**India is the one of the world's 12th mega biodiversity centers having rich vegetation with 47 thousand plants species and a wide varieties of ethno-botanical plants along with tradition of plants based knowledge distributed among the vast number of ethnic group. The survey report shows that 227 important plant species were present in Bhilai township plant species found in following manner 27%> 12% for tree and shrubs. It was also note that family Fabaceae shows maximum plant species in all categories. It was observed that leaves, root, stem, bark are used. Whole part of the plant was used maximum for treatment than leaves , bark , fruit and seed were used as medicine survey indicates that the knowledge of indigenous medicinal plant are not sufficient so, there is urgent need of detailed experiments and investigations.**

**KEYWORDS:** Indigenous Medicinal Plant, Medicinal Properties.

In the developed countries the medicinal drugs (25%) are based on plants and their derivatives[1] and use of medicinal plants among the indigenous people in rural area of many developing countries. Botanically derived medicinal plants played a major role in human societies throughout history and prehistory (Lewis *et al.,*2003). The ethno-botanical use of this unique group is of immense importance (Singh *et al.,*1998, Dhiman *et al.,*1998) and ethno-botanical use of some fern amongst the Tribal area

Chhattisgarh is known as herbal state of our country. Several workers studied the ethano-botanical properties of plant via Gangwar *et al.* (2010), Pati and Agrawal (2010), Sinha (2013), Arvind *et.al.* (2005), Pandey and Khan (2014), Pandey *et al.* (2014), Pandey and Bhandari (2014) to understand the uses and antimicrobial activity of plant species. In Bhilai Nagar numerous trees were planted by State Forest Department, existing trees and naturally grown up. Therefore the present survey deals the actual status of plant species and their properties which are very essential to make more sense to monitor this green public wealth.

## MATERIALS AND METHODS

In the present study, Line-transect method was used for sampling, the trees and shrubs. Whole city was divided into six segments. Only angiosperm plants of each segment area had been studied. Collected plants were brought to the laboratory for botanical diagnosis, their detailed information pertaining to the botanical name Vernacular name, Family name and their uses etc.

## FINDING AND OBSERVATION

The present study investigated that total 227 plant species were recorded. In which 100 plants have curative properties belonging to 33 families of trees, small trees and shrubs. Survey report shows that, 27% trees and 12% shrubs are present some other plants like *Cuscuta reflexa* (parasitic plant), *Tinospora cardifolia* (Lianias species) and other climbers are *Asperagus rugosus*, *Abruscisus precatorius* were commonly found in this area. It was observed that leaves, roots, stem bark of angiospermic trees, small trees and shrubs are used for various purposes. Present day research data its exploration shows that these ethno-botanical studies can be greatly beneficial to human race for treating disease with cheap and best non side effect solutions.

The above plants were maximum used for the treatment of abdominal disorder followed by gynecological problems then skin diseases, cough, cold, fever, asthma, toothache and other pain, cardiac and blood pressure respectively. Some plants are also used in various diseases i.e. nerve disorder, snake bite, tumor, arthritis, hair fall, anemia, diabetes etc.

Different plant parts are used for the cure of diseases like root, stem leaf, flower, fruit and some time whole plant is used for the above purpose. These parts are used as fresh, extract and in dry form by the local people.

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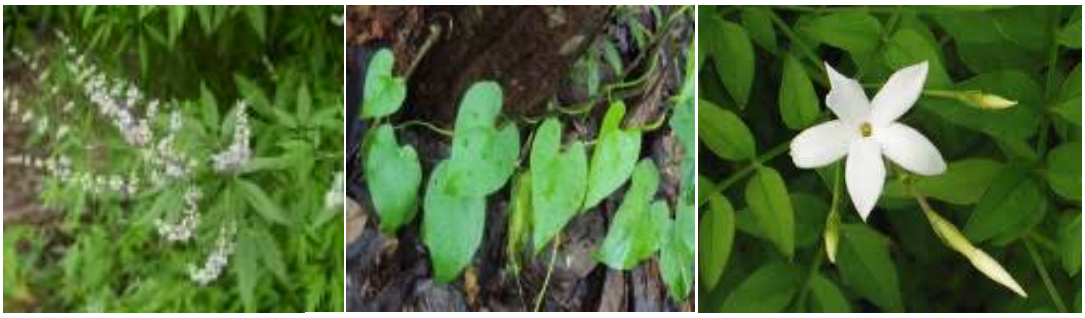
**Table 1: Systematic Position of Certain Trees and their uses**

| SN | Botanical Name | Vernacular Name | Family | Plant Part Used | Treatment |
|---|---|---|---|---|---|
| 1 | *Acacia nitotica* (L) wild | Babool | Fabaceae | Leaves, bark, flower, fruit, seed | Eye elements, cough, facial paralysis, easy delivery, asthma, fever. |
| 2 | *Diospyros melanoxylon* Roxb. | Tendu | Ebenaceae | Fruit, Pulp and Leaf | Healing of crack feet, edible, bad breath, dysentery |
| 3 | *Acacia catechu* (L.F.) wild. | Kattha | Fabaceae | Bark, hard wood, juice, leaf, flower | Toothache, cough and cold, stomach pain |
| 4 | *Bambusa arundinacea* L. | Baans, Bans | Poaceae | Whole Plant | Wound healing, Leprosy, feeding of cow after delivery |
| 5 | *Anoona reticulate* Linn. | Ramphal | Annonaceae | Fruit, leaf, seeds, stem | Digestion, tumor, cancer, diabetes |
| 6 | *Moringa oleifera* Lamk. | Munga | Moringaceae | Fruit, bark, leaves, root | Piles, cough, intestinal worm, BP., gum probem, headache |
| 7 | *Butea monospora,* Lam Taub | Tesu,Parsa, Palas | Fabaceae | Leaves, bark, flower, fruit, seed | Abortion, leucoderma, fertility |
| 8 | *Emblica officinals* Gaerth | Amla, Aawla | Euphorbiceae | Leaves, bark, fruit | Anemia, bleeding, indigestion |
| 9 | *Ficus racemosa.* L. | Dumar/Gular | Moraceae | Leaves, bark, fruit, seed | Diabeties, |
| 10 | *Ficus religiosa.* L. | Peepal | Moraceae | Leaves, bark, fruit, root | Teeth problem, headache,asthma |
| 11 | *Ficus benyhalensis.* L. | Bargad/ Vat | Moraceae | Leaves, bark, fruit, root | Hair fall |
| 12 | *Mangifera indica.* L. | Aam, aama | Anacandaceae | Fruit,inflorescence, flower, leaves, bark | Cough, diabetes, tonic. |
| 13 | Albezia Lebbeck L. | Siris | Fabaceae | Twig, fruit | Bleeding gum |
| 14 | Dalberzia sissoo Rexb. | Shisham | Fabaceae | leaves | Lepracy ,fever |
| 15 | *Maduca indica Gmel.* | Mahua | Sapotaceae | leaves | pain |
| 16 | *Pongamia pinnuta. L.* | Karanj | Fabaceae | bark | Skin problems |
| 17 | *Bahunia purpurea.L.* | Khairwal | Fabaceae | Bark, leaves | Ulcer |
| 18 | *Delonix regia Boj. R.* | Gulmohar | Fabaceae | Bark, leaves | Dismenorrhoea |
| 19 | *Syzygium cumini skeel.* | Badi jamun | Myrtaceae | Seed , fruit, leaves | Diabetes, Diorrhoea, Ulcer |
| 20 | *Sanaka indica (Roxb)* | Ashok | Fabaceae | Fruit, bark, flower | Uterine infection, leucoderma |
| 21 | *Eucalyptus globulas Labill* | Nilgiri | Myrtaceae | Fruit, seed, leaves, bark | Cold & cough |
| 22 | *Aegle marmelos corrce* | Bel | Rataceae | Fruit, leaves | Jaundice, ambiacsis, BP |
| 23 | *Moringaq olerifera Lamk.* | Munga | Moringaceae | Fruit, leaves, flower, root, bark | Sickle cell anemia,BP |
| 24 | *Terminalia arjuna Roxb.* | Kahua | Combretaceae | Bark | high BP, cardiac disease,Asthma |
| 25 | *Cassia fistula.L.* | Amaltas | Fabaceae | Fruit, bark, leaves | Tonsils, cough, constipation |
| 26 | *Terminalia bellirica (gaerth) Rox.* | Baheda | Combretaceae | Seed, fruit, bark | Cold, cough, eye disease, asthma, tonic |

**Table 2: Systematic Position of Shrubs and their uses**

| S. No | Botanical Name | Vernacular Name | Family | Plant Part Used | Treatment |
|---|---|---|---|---|---|
| 1 | *Jasmminum grandiflorum L.* | Chameli | Oleaceae | Leaf , Root, Flower | Ulcer, headache, mouth disease, impotency, skin disease, ear problem |
| 2 | Hibiscus rosa sinensis L. | Gurhal | Malvaceae | Leaf , Root, Flower | Hair fall, cough and cold, stomach pain |
| 3 | *Caltropis procera* W.T. Aiton | Aak | Asclepiadaceae | Whole Plant | Cut and wound, leprosy, dropsy, rheumatic pain, asthma, bronchitis |
| 4 | *Carissa carandus* Linn. | Karonda | Apocynaceae | Root, Fruit | Anemia, constipation |
| 5 | *Citrus medica* Linn. | Nimbu | Rutaceae | Fruit, leaf, root, whole plant | Throat disorder, constipation, antiseptic digestion, dandruff, fever |
| 6 | *Ricinus communis* Linn. | Arandi | Euphorbiaceae | Leaf, Seed | Seed oil in purgative, piles, joint pain, hair fall, skin disease, head ache |
| 7 | *Thevatia nerifolia* | Kaner | Apocynaceae | Whole plant | Cough, cold, Fever |
| 8 | *Zizyphus mauritiana* Lam. | Ber | Rhumanaceae | Whole plant (except root) | Head ache, dysentery |
| 9 | *Solanum nigrum*.L. | Makoi | Solanaceae | Whole plant | Constipation, jaundice, piles |
| 10 | *Nerium oleander.* L. | Karber, kaner | Apocynaceae | Fruit & leaves | Cuts & wounds, leucoderma |
| 11 | *Vitex negundo.* L. | Nirgundi | Verbenaceae | | Cold cough, indigestion |
| 12 | *Jatropha gossupifolia.* L. | Ratanjot | Euphorbiaceae | Seed | Abdominal pain, nerve disorder |
| 13 | *Thespesia lampus* L. | Kapas | Malvaceae | Fruit, leaves | Swelling, arthritis |
| 14 | *Bouganvilia septabilis* | Kagaj phool | Nyctaginaceae | Leaves, flower | Diabetes |
| 15 | *Anvona squamosa* | Sitaphal | Anacandaceae | Seed, leaves, bark, fruit | Snake bite, abortion, tooth ach |
| 16 | *Lantana camera Linn* | Ghneri,chotra | Verbenaceae | Whole plant | Bronchitis |
| 17 | *Acacia Arabica* L. | Subabool | Fabaceae climber | Whole plant | Tooth cleaner, cough, piles |
| 18 | *Cissus quadrianularis* | Hadjod | Vitaceae | Whole plant | Bone fracture, animal bite |
| 29 | *Tinospora cardifola* (wild) Miers | Giloe | Menspermaceae | Leaves, twig | Heart problem, fever |
| 20 | *Asperagus racemosus* (wild) | Satawar | Liliaceae | Root (tuber) | Root juice is energetic |

*Anoona reticulate* Linn. *Acacia catechu* (L.F.) wild. *Butea monospora* Lam.



*Vitex negundo.* L. *Tinospora cardifola* (wild) Miers *Jasmminum grandiflorum L.*

**Figure: Photographs of some plants**

## DISCUSSION

During the survey period medicinal plant flora are identified for the treatment of various uses. Considering previous studies & present survey indicates that such types of Ethno-medicinal diversity of the plants may be useful for mankind. According to Gangwar *et.al* villagers & tribes still use medicinal herbs for treatment of cold, cough, fever, headache, body ache, constipation, dysentery etc. they maintain the sustainability of flora, because they are very approachable and low cost treatment of the diseases without any side effect.

Focusing on the present day situation of ever increasing exploitation of plants and natural resources the main reason for showing interest towards ethno-botany is its vast outcome that is beneficial for every living being.

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