

# STUDIES ON BIODIVERISITY OF PLANTS USED FOR CURING SKIN

# DISEASES BY TRIBAL PEOPLE FROM AMBABARVA SANCTUARY (M.S.)

#### INDIA

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#### Abstract:

The paper deals with study of exploration of bio-diversity of medicinal plants of tribal areas of Ambabarva sanctuary of Maharashtra. The plant species used in the treatment of skin diseases among the tribal communities of the sanctuary. About 15 plant species of 11 families were recorded for the treatment of various skin diseases.

#### Keywords

Medicinal plants, skin disease, Ambabarva Santuary, Maharashtra

#### Introduction:

The tribal knowledge of plants is an important aspect of ethnobotanical research. Tribal people are important for their treasured and unique knowledge of plant wealth. These plants are new source of herbal drugs and other aspect of plants. These plants are of immense value to human health and about 80% of world's population relied on plants for cure of various ailments (Chauhan, 1999). The World Health Organization (WHO) estimates that about 80% of the population of most developing countries relies on herbal medicines for their primary healthcare needs (Desilva, 1997). Indigenous knowledge on natural resources, utilization of medicinal plants not exceeding the resilience of the surrounding environment is regarded as an important solution of sustainable plants biodiversity conservation (Kala, 2005). Without proper documentation of this knowledge the cultural heritage is demised. The present investigation has been carried out to explore the medicinal plants of tribal areas of Ambabarva sanctuary. Ambabarva sanctuary is situated in Buldhana district of Maharashtra. This sanctuary is a part of Melghat Tiger Reserve. The area is



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rich in medicinal plant wealth. Since, immemorial times plants have been used as source of food, shelter, clothing, medicine, fibre, gum, resin, oil etc. Several species which grow wild are being used for edible purposes local habitants of Ambabarva Sanctuary. Many of such wild species have become popular now and cultivated extensively. Various parts of such plants are used as vegetables, pickles or other preparations. The tribal communities of Ambabarva Sanctuary are Korku and Gond. The Ambabarva Sanctuary comprising of 127.11 Sq Kms lies nestled in the Satpura Hill Ranges of Buldhana district of Maharashtra. The Sanctuary, touching a maximum altitude of 933.50 msl, has temperature varying from 35 to 43 degree Celsius and an annual rainfall that varies from 500 to 900 mm. Lying south of the Melghat Tiger Reserve, this Sanctuary is under the administrative control of the Deputy Conservator of Forests, Wildlife Division Akot working under the Conservator of Forests and Field Director, Melghat Tiger Reserve based at Amravati. The area is well known for its richness of flora and fauna. The Sanctuary area has special historical, biological, mythological, archaeological, scenic and recreational values and is a point of attraction for the tourists and the people of Maharashtra. The rich and varied miscellaneous forests of the area provide natural habitat to birds and wild animals. During the survey of this area it was noticed that several wild species are used for medicinal purposes by these local tribal peoples. Such wild medicinal plants have enumerated below. The botanical names, local names, family and local names are followed by collection number. The plant parts used in the treatment of skin diseases also mentioned.

## Material and Methods:

Several ethnobotanical surveys were conducted during the period 2010-12 in tribal areas of Ambabarva sanctuary. The study area lies on the Satpuda Hill Ranges in the district of Buldhana of Maharashtra. An extensive data were collected regarding the utility of plants for food and medicines. The ethnobotanical data was collected from tribal people, Vaidyas, Gram Pradhan





and other experienced informants having knowledge of herbal drugs used by different tribal people. The plants were collected and their herbarium was prepared as per standard protocol as described by Verghese (1996). The collected plants were identified with the help of floras and other taxonomic literature (Kamble & Pradhan, 1988; Dhore, ).

#### **Result and Discussion:**

In the present study 15 plant species belonging to 11 families are used as medicine for the treatment of skin diseases. Family Euphorbiaceae with 3 species was the dominant family. Followed by Mimosaceae with 2 species, Asteraceae with 2 species, Acanthaceae with 2 species, Meliaceae with 1 species, Liliaceae with 1 species, Combretaceae with 1 species, Sapotaceae with 1 species, Fabaceae with 1 species, Rutaceae with 1 species. Abrus precatorius, Acacia catechu, Asparagus racemosus, Hygrophila auriculata, Madhuca longifolia, and Mallotus phlippensis are used in the treatment of various types of skin diseases. Aegle mormelos and Clitorea ternatea are use in the treatment of scabies. Ageratum conyzoides is used to cure leprosy.

| S.N. | Botanical Name                                            | Family      | Local Name        | Plant part<br>used | Mode of treatment                                                                  |
|------|-----------------------------------------------------------|-------------|-------------------|--------------------|------------------------------------------------------------------------------------|
| 1    | Abrus<br>precatorius L.                                   | Fabaceae    | Gunja,<br>Ghumchi | Seeds              | Paste of the seeds applied on<br>the skin for treatment of<br>disease              |
| 2    | <i>Acacia catechu</i> (L.f) Willd.                        | Mimosaceae  | Khair             | Bark               | Bark paste is applied on the skin to cure disease                                  |
| 3    | <i>Acacia nilotica</i><br>(L.)Willd. Ex<br>Delile         | Mimosaceae  | Babool            | Leaf, Bark         | Bark and Leaves paste is<br>applied locally on skin to cure<br>body swelling       |
| 4    | Aegle mormelos<br>(Linn.) Corr.<br>Serr.                  | Rutaceae    | Belpatri          | Fruit, Leaves      | Unripe fruits and tender leaves<br>paste is applied on the skin to<br>cure scabies |
| 5    | Ageratum<br>conyzoides L.                                 | Asteraceae  | Khajju            | Leaf, stem         | The paste of leaves and stem is applied locally to cure leprosy                    |
| 6    | Andrographis<br>paniculuata<br>(Burm. f) Wall.<br>ex Nees | Acanthaceae | Kalmegh           | Whole plant        | The paste of whole plant is<br>applied on the skin to cure<br>disease              |
| 7    | Asparagus<br>racemosus<br>Willd.                          | Liliaceae   | Shatavai          | Tuber              | Tuber paste is applied to cure skin disease                                        |



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| 8  | Azadirachta<br>indica A. Juss.                           | Meliaceae     | Kadua Neem | Leaf, flower,<br>bark | Leaf and bark decoction is<br>applied on the skin to cure skin<br>disease<br>Flower boiled in hair oil and it<br>is applied on the head<br>externally to cure dandruff. |
|----|----------------------------------------------------------|---------------|------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9  | <i>Clitorea ternatea</i> Linn.                           | Fabaceae      | Gokarni    | Leaf                  | Leaf juice is applied on the skin to cure disease                                                                                                                       |
| 10 | <i>Dhatura metel</i><br>Linn.                            | Solanaceae    | Dhatura    | Leaf                  | Leaf juice is applied on the swellings                                                                                                                                  |
| 11 | <i>Euphorbia hirta</i><br>Linn.                          | Euphorbiaceae | Dhudhi     | Latex                 | Latex is applied on skin to cure disease                                                                                                                                |
| 12 | <i>Hygrophila</i><br><i>auriculata</i><br>(Schum.) Heine | Acanthaceae   | Talimkhana | Leaf, roots           | Dried leaf and roots powder is<br>applied on the affected part of<br>the skin to cure disease                                                                           |
| 13 | Madhuca<br>longifolia<br>(Koenihg.)<br>Macoride          | Sapotaceae    | Mahua      | Seeds                 | The paste of seeds is applied<br>on the skin to cure skin disease                                                                                                       |
| 14 | Mallotus<br>philippensis<br>(Lam.) Muell.<br>Arg.        | Euphorbiaceae | Kumkum     | Fruits                | Red powder obtained from<br>fruits mixed with coconut oil<br>is applied externally to cure<br>skin diseases                                                             |
| 15 | <i>Terminalia</i><br><i>bellerica</i><br>(Gaertn.) Roxb. | Combretaceae  | Bahera     | Fruits                | Paste made from the fruits is<br>applied on the skin to cure<br>rashes                                                                                                  |

## **Conclusion:**

The present study is deals with the traditional medicinal or folk medicine practice based on the use of plants and plant extracts. Such traditional use of medicines is recognized as a way to learn about potential future medicines. Plants have evolved the ability to synthesize chemical compounds that help them defend against attack from a wide variety of predators such as insects, fungi and herbivorous mammals. By chance, some of these compounds, while being toxic to plant predators, turn out to have beneficial effects when used to treat human diseases. Plants contain phytochemicals that have effects on the body. The information of medicinal plants from the forest dwellers is very important clue for the searching of new drugs. Phytochemical analysis of these plants would be helpful for investigation of various drugs from these plants. Further these drugs becomes separated and purified for formulation as new drug for the treatment of various skin ailments.



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