BULL. BOT. SURV. INDIA
Vol. 46, Nos. 1-4 : pp. 403-410, 2004

THE ETHNOBOTANY OF THE GOND TRIBE OF NORADEHI WILDLIFE SANCTUARY MADHYA PRADESH–PLANTS USED IN SKIN DISEASES

GAYATRI DUBEY

Department of Botany, Dr. H.S. Gour Vishwavidyalaya, Sagar

ABSTRACT

About 46 plant species used by Gond tribesmen in Noradehi Wildlife sanctuary of Madhya Pradesh for curing various skin diseases are enumerated.

INTRODUCTION

Noradehi Wildlife Sanctuary was created in the year 1975. It covers 1,197.042 kms of forests of Sagar, Damoh and Narsinghpur districts. It lies between 79°5' and 79°25' East longitude and 23°5' and 23°45' North latitude. It is well connected with Jabalpur, Sagar and Damoh cities which are also the nearest rail heads. These cities are approximately at the same distance (*ca* 70 km) from sanctuary. National highway No.26 connects sanctuary with Sagar and Jhansi, while state highway No.12 connects it with Jabalpur and Bhopal. The tract consists of series of level or undulating plains, traversed by broken ranges of low flat topped hills, running from north-east to south-west. The hills rise from plain level in north with moderate to steep slopes and terminate into low hill ranges in south, where they abruptly drop into plains of Narmada valley, where deep gorges, caves and cliffs are abundant.

The Vindhayans, Lametas and Deccan Trap are the chief rock formation met within sanctuary limits. However, it is the upper Vindhayan sand stone formation which occurs extensively and occupies more than seventy-five per cent area of the forest. The variations in the geological formation, topography, drainage and soil eroding factors, give rise to a variety of soil types which are red soils, black soils and alluvial soils.

The general climate of the sanctuary is pleasant. The major bulk of the rainfall is received in the tract from south-west monsoon. The mean annual rainfall is 804.89 mm (1987-90). The maximum monthly average rainfall was in the month of August (397.35 mm). The temperature shows gradual rise and downfall throughout the year. The mean maximum temperature ranges from 25-39°C to 41.17°C and mean minimum temperature

ranges from 11.65°C to 26.35°C. The maximum monthly average relative humidity in the month of August 91.57 and minimum monthly average relative humidity, in the month of April is 15.6. There are many perennial sources of water in the tract, which can broadly be categorised into rivers, pools, jhiriyas, springs, tank, etc. All these conditions provide a congenial environment for the growth of plant wealth.

The forests of the sanctuary are heterogenous in composition, extent and distribution. They occur in extensive compact tracts as well as interspersed with cultivation which result in a kaelidoscopic variety in the forms of structural development, specific composition and crop density in the different tiers of forest in various microlocation. The wide diversity occurs not only in extent and distribution of the forest but arises also due to seasonal variation in the phenology of the numerous species constituting the deciduous mixed forest crops.

Among the five tribal zones in India, Noradehi sanctuary comes under central zone. The main predominating tribe in the sanctuary is Gond which belongs to the Rajgonds, a principal tribe of the Dravidian family and perhaps the most important of the non Aryan or forest tribes in India. The tribals are dependent on the forest for their day to day requirement and for curing their various diseases. This sanctuary is rich reserve of plants from which many drugs are obtained which are utilized in indigenous system of medicine by the Gond tribe. A review of literature shows that except some ethnobotanical studies in few regions of whole of the Madhya Pradesh (Oommachan & Khan, 1981; Khan *et al.*, 1982; 1984; Shah, 1982; Singh, 1989), there are certain regions in the state, left unexplored ethnobotanically and Noradehi wildlife sanctuary park is one of them. In view of this, the survey of the region was undertaken with the emphasis on the plants used in the skin diseases by Gond tribe.

METHODOLOGY AND OBSERVATION

Collection of medicinal plants were made from different localities in the sanctuary by organising extensive survey for four years (1996- 2000). During the survey and collection, the data has been gathered from the tribal medicinemen in different villages of the sanctuary .The details of the plants such as habit, habitat, botanical names, families, local names, distribution, field number etc. were recorded in the field diary alongwith medicinal uses of plants against skin diseases. The collected specimens were carefully investigated, identified and kept for future reference in the departmental herbarium of Dr. Hari Singh Gour Vishwavidyalaya, Sagar. Amongst a large number of plants collected during various field trips the following species are widely used by the tribal for curing their various types of skin diseases. The skin diseases are grouped into six groups and the plants used for curing these diseases are described below.

I. SCABIES

1. **Capparis zeylanica** L. (Capparaceae)
"Aranda"
Root bark is made into paste in water and applied on scabies.

2. **Ficus religiosa** L. (Moraceae)
"Pipal"
Young bark is infused and is given internally in scabies.

3. **Gossypium herbaceum** L. (Malvaceae)
"Kapas"
Seed oil is an embrocation for rheumatic diseases and dressing for scabies.

4. **Jatropha curcas** L. (Euphorbiaceae)
"Jamalghota"
Juice of the plant is applied on the affected areas of scabies.

5. **Mangifera indica** L. (Anacardiaceae)
"Aam"
Latex from bark is mixed with camphor or rocksalt (locally called sendha namak) and applied on scabies.

6. **Tectona grandis** L.f. (Verbenaceae)
"Sagon"
The flower oil is useful in scabies

II. ECZEMA

1. **Asparagus racemosus** Willd. (Liliaceae)
"Satawar"
The pulp of the ripe fruit is said to be efficacious in eczema.

2. **Combretum decandrum** Roxb. (Combretaceae)
"Pivarbel"
The seed oil is applied on eczema.

3. **Flacourtia indica** (Burm. f.) Merr. (Flacourtiaceae)
"Kakal"
Bark paste is applied over body parts affected with eczema.

4. **Leucas plukenetii** (Roth.) Spreng. (Lamiaceae)
"Gopha"
Powdered seeds mixed with edible oil are applied on eczematous patches.

5. **Parthenium hysterophorus** L. (Asteraceae)
"Gajarghans"
Decoction of root is remedy to cure eczema.

III. BOILS AND PIMPLES

1. **Allium cepa** L. (Liliaceae)
"Piyaz"
One piece crushed with little turmeric powder and warmed paste is applied over the affected region of boils for 3 days.

2. **Aloe barbadense** Mill. (Liliaceae)
"Gawar Patha"
Plant crushed and applied over the boils for 1-2 days

3. **Azadirachta indica** Juss. (Meliaceae)
"Neem"
250 gm bark boiled in water and extract is used to wash the affected regions of boils and pimples for 2-3 days. The juice of the leaves and seed oil is used in boils.

4. **Bombax ceiba** L. (Bombacaceae)
"Semul"
Crushed bark is heated with salt and applied to boils.

5. **Calotropis procera** (Ait.) R. Br. (Asclepiadaceae)
"Madar"
Latex is applied on boils. Oil, smeared leaves are warmed and tied to ripe boils.

6. **Calotropis gigantea** R.Br. (Asclepiadaceae)
Leaves are gently boiled and applied on boils.

7. **Cannabis sativa** L. (Cannabinaceae)
"Bhang"
Leaves paste is applied on pimples and boils.

8. **Capparis zeylanica** L. (Capparaceae) "Aranda"
The leaves are used as a cataplasm in boils.

9. **Datura metel** L. (Solanaceae)
"Kala Dhatura"
The fruit paste with sulphur is used to cure boils.

10. **Euphorbia hirta** L. (Euphorbiaceae)
"Dudhi"
Poultice of stem and leaves is applied over boils.

11. **Lawsonia inermis** L. (Lythraceae)
"Mehndi"
Crushed leaves with. *Mallotus philippinensis* applied on boils.

12. **Lepidagathis cristata** Willd. (Acanthaceae)
The dried plant is burnt and its ash is applied to boils.

13. **Linum usitatissimum** L. (Linaceae)
"Alsi"
200 gm leaves are crushed, boiled in water and strained; extract is applied over the affected areas of boils and pimples (cyst formation under the skin).

14. **Mucuna pruriens** (L.) DC. (Papilionaceae)
Leave paste is applied on boils.

15. **Piper belte** L. (Piperaceae)
"Pan"
Leaves are smeared with butter then warmed and tied on boils to open it.

16. **Portulaca quadrifida** L. (Portulacaceae)
Paste of leaves in milk is applied over pimples.

17. **Luffa acutangula** (L.) Roxb. (Cucurbitaceae)
Leaf of paste (warm) is applied on boils to remove pus.

18. **Plumbago indica** L. (Plumbaginaceae).
Root paste is applied on boils.

19. **Santalum album** L. (Santalaceae)
"Chandan".
Wood ground in water and paste is applied over the affected regions of boils and pimples for 2 days.

20. **Sida cordata** (Burm. f.); Borss. (Malvaceae)
Warm plant paste is applied over boils.

21. **Siegsbeckia orientalis** L. (Asteraceae)
Plant paste is applied over boils.

22. **Solanum surattense** Burm.f. (Solanaceae)
"Bhat-Katai"
The seed paste is applied in boils.

23. **Tamarindus indica** L. (Caesalpiniaceae)
Boiled seeds are used as poultice on boils.

24. **Vitex negundo** L. (Verbenaceae)
"Nirgundi"
The leaf paste is applied over boils and pimples.

IV. RINGWORMS

1. **Allium sativum** L. (Liliaceae)
"Lehsun"
Bulb is crushed and applied over the affected area or dried cowdung mixed with crushed bulb is applied over the affected area of ringworm.

2. **Butea monosperma** (Lamk.) Taub. (Papilionaceae)
"Palash"
Seeds are pounded and given with honey to children for curing ring worm.

3. **Cassia tora** L. (Caesalpiniaceae)
"Pamar"
Leaves powdered and mixed with honey are given to children for curing ringworm.

4. **Cannabis sativa** L. (Cannabinaceae)
"Bhang"
Leaves powdered into paste are applied on ringworm.

5. **Euphorbia hirta** L. (Euphorbiaceae)
"Dudhi"
Whole plant or juice is applied locally on ringworm.

6 **Ficus bengalensis** L. (Moraceae)
"Bargad"
Milky latex is applied over the affected areas of ringworm.

7. **Ficus carica** L. (Moraceae)
"Anjeer"
Milky latex is applied over the affected areas of ringworm.

8. **Mangifera indica** L. (Anacardiaceae)
"Aam"
Gum of the plant is used to cure ringworm.

9. **Nigella sativa** L. (Raunculaceae)
"Kalajira"
The leaf juice is used in ringworm.

10. **Tectona grandis** L. (Verbenaceae)
"Sagon"
The wood oil is a good remedy for ringworm.

V. ITCHING

1. **Andrographis paniculata** (Burm.f.) Wall. ex Nees (Acanthaceae)
"Kalmegh"
Leaves are pounded and mixed with sarson oil and applied on body in itching.

2. **Cassia tora** L. (Caesalpiniaceae)
"Punwar"
Tender leaves are eaten to prevent itching.

3. **Cannabis sativa** L. (Cannabinaceae)
"Bhang"
Paste of leaves, flowers and roots is used to cure itching.

4. **Carissa carandas** L. (Apocynaceae)
   Seed oil is used as a remedy for itch.

5. **Limonia acidissima** L. (Rutaceae)
   "Kaith"
   Decoction of stem bark prepared in a closed carthen pot is applied locally on eitch.

6. **Trichodesma indicum** (L.) R.Br. (Boraginaceae)
   "Chota-Kalpa"
   Expressed juice of leaves is applied for treating itching.

VI. SWELLING

1. **Jatropha curcas** L. (Euphorbiaceae)
   "Jamalghota"
   Root paste is used for treating swelling.

2. **Mimosa pudica** L. (Mimosaceae)
   "Touch me not"
   Crushed leaves are tied over swollen parts of skin.

3. **Ricinis communis** L. (Euphorbiaceae)
   "Arand"
   Leaf paste is used for massaging the body of the person.

CONCLUSION

The study has revealed that the medicinal plant resources of Noradehi Wildlife Sanctuary are quite rich. The present work yielded useful information regarding certain wild and cultivated plant species of the sanctuary which has got specific medicinal value as a remedy in skin diseases. Most of the information regarding the medicinal properties has not been restricted to one or few persons of tribal areas. Therefore, it is necessary to popularise their identity and utility which remained unverified and unutilised till now, amongst tribals of Noradehi sanctuary. Although it is a reserve forest, where biological interference is not much yet some of the plant species are found vanishing due to excessive exploitation in their natural habitats. Methods for their propagation should be evolved to meet increasing demand for these plants. Search for alternate substitute plants and also preservation of their germplasm should also be given immediate attention. Phytochemical evaluation and screening of medicinal plants will help in identifying the efficacy of the substitute plants. It will also help in setting the most efficient ones for the treatment of a particular disease where many plants are available as remedy.

ACKNOWLEDGEMENTS

I am thankful to Prof. K.M. Vyas, Head of Botany Department for providing facilities for the survey and Prof. T .R. Sahu, my guide, for proper guidance during the survey and also for helping in preparing this paper.

REFERENCES

KHAN S.S, S.A. CHAGHTAI AND M. OOMMACHAN. *J. Sci. Res.*, 4(3): 185-187. 1982.

KHAN S.S *J. Sci. Res.*, 6(1): 37-39. 1984.

OOMMACHAN, M. AND S.S. KHAN. Ancient Science Life, 1(1) : 64-66. 1981.

SHAH, N.C. Herbal folk medicines in Northern India, *J. Ethnopharmacol.* 6: 293-301. 1982.

SINGH, K.K. Plants used against wounds: Survey of Santhal medicine. *J. Indian Bot. Soc.* (Abs.) : 62. 1989.