

TRADITIONAL USE OF FAMILY LORANTHACEAE FROM WESTERN MAHARASHTRA, INDIA

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ABSTRACT: Family Loranthaceae is characterized by parasitic nature of its species. Tribal people give importance to members of this family for their wild edible, medicinal values and withcraft and superstitious uses. In this connection, ethnobotanical survey among Mahadeokoli tribe was carried out in five districts namely Ahmadnagar, Nasik, Pune, Raigad and Thane. Information collected during field survey in Western Maharashtra as well as from ancient literature is presented in this paper.

Introduction

Family Loranthaceae is characteristic for its parasitic habit on trees and shrubs. This family includes three genera viz. *Loranthus*, *Dendrophthoe* and *Viscum*. Many of the trees like *Mangifera indica*, *Memecylon edule*, *Ficus* spp. Etc are common hosts of these parasites.

Researches have reported new hosts from different regions (5,9). Traditional uses of those plants were compiled on medicine from Himalayan region, Uttar Pradesh, Madhya Pradesh and Maharashtra also. Several uses of the genus *Loranthus*. Like abortification, antifertility, brain tonic, wound healing, etc. were reported (3).

Viscum species are also used for antifertility, bone fracture, fever, itches, etc. They are also used for hysteria and as purgative, antispasmodic, cardiogenic, fenrifuge, aphrodisiac, etc, it is very interesting to note that *Viscum monoicum* and *V. orientale* are found in *Strychnos nux-vomica* Linn. Tress. Due to parasitic nature, its leaves possess properties more or less similar to *S.nux-vomica*. *Viscum articulatum* contains

chemicals like a-anyrin, betulin, betulinic acid, lupeol and oleanoic acid (1). Biological activities of *Dendrophthoe* are astringent, narcotic, for asthma, menstrual troubles, etc. Quercetin and Gallic, ellagic and chebulic acids were found in *Dendrophthoe falcata*, as they are reported to parasitize *Terminalia tomentosa* (10).

Ethnobotanical information on Bhil community from Rajasthan region regarding *Viscum articulatum*, as whole plant is used for pulmonary inflammation and swelling in chest (4). However, very scanty ethnobotanical information on family Loranthaceae has been collected from state of Maharashtra. Some folk uses reported in ancient literature (8) were based on superstitious beliefs. Tribal people also practice plants from family Loranthaceae for purpose of human/animal health care, medicine, wild edible, superstitious, witchcraft, etc. Present paper deals with ethnobotanical approach in respect of family Loranthaceae.

Material and Method

The state of Maharashtra occupies fifth position in the size of tribal population. The proportion of scheduled tribe population to the total population of the state is to the tune of 9.10 percent. Major tribes in the state are Bhill, Mahadeokoli tribe ranks second in the state. They reside in hilly regions of Ahmadnagar, Nasik, Pune, Raigad and Thane districts. This tribe is socio-economically very compact and homogeneous. They have no traditional occupations based on caste. They practice agriculture and also prefer to work as agricultural and forest labourers like any other hill or forest tribals.

This tribe collects food, medicine, fodder and other 40 different essential commodities from forest resource. They worship forest god or tribal deity. They maintain very compact social, cultural and environmental relationship with the surrounding forest and sacred forest. It is a sensitive and sentimental affinity in tribal localities of India and it is maintained under all odds and disasters(6). Mahadeokoli tribe is using 'Bande' or 'Bandgul' for different purpose. During the ethnobotanical survey data procured in connection with the family loranthaceae is presented below.
Dendrophthoe falcata (L.f.) Etting.

Wild edible:

Ripe fruits are edible.

Medicinal:

Urine disorder

Juice of the parasite on *Mangifera indica* L. or *Tectona grandis* L. is used for urine trouble.

Bone fracture

1. Parasite on *Ficus racemosa* L. Is used for bone fracture.
2. Paste of Parasite on Grecian tiliifolia Vahl, *Sterculia urens* Roxb. and *Diospyros melanoxylon* Roxb. is applied on bone fracture area.

Tonic

Juice of parasite on *Carissa carandas* L. is used as tonic.

Diarrhoea

Ripe fruits are eaten to check diarrhea.

Veterinary medicine:

To prevent immature delivery

Stem part of parasite is tied to neck of pregnant cattle to prevent immature delivery.

Viscum angulatum Heyne ex DC.

Medicinal:

Bone fracture

Whole parasite made into paste is used for bone fracture.

Jaundice

Stem part is garlanded on neck in jaundice.

Veterinary medicine:

Bone fracture

1. Whole extract of parasite is given orally as well as tied on bone fracture area.

2. Whole plant extract of parasite along with bark of *Grewia asiatica* L. Is used for bone fracture.

To prevent immature delivery:

Stem part of parasite is tied to neck of pregnant cattle to prevent immature delivery.

Medicinal uses reported in Ancient literature:

1. Extract of parasite of *Ficus religiosa* L. collected in Ashwin constellation (Nakshatra) is taken with cow milk.
2. Parasite of *Aegle marmelos* Coirr is kept in house.

To get relief from ill health

Parasite on *Ficus racemosa* L. collected in *Kratika* constellation is extracted and taken with milk.

For increasing hunger/appetite

Parasite on *Dalbergia sissoo* Roxb. Collected in Uttara of Purva constellation is tied on hand.

To get relief from fever

Parasite on *Xeromphis spinosa* Keay is collected in Hasta constellation and tied on hand.

To increase span of life

Parasite on *Pongamia pinnata* Pierre is collected in Vishakha constellation and tied on hand.

Aphrodisiac

Parasite on *Acacia nilotica* Willd. is procured in Revati constellation and tied on hand.

For Arthritis

Parasite on *Bombax ceiba* L. is used for arthritis.

For otolea and ear complaints

Parasite on *Terminalia chebula* Retz. Is used for ear disorder/ear infection

To depress hunger

Parasite on *Anona squamosa* L. is used for depressing hunger.

Veterinary Medicine

To relieve from diseases

1. Parasite on *Phyllanthus reticulatus* Poir. Is tied on neck of sheep and goat.
2. Parasite on *Terminalia chebula* Retz. Is used to relieve cattle from diseases.

To get high yield of grain

1. Collect parasite from *Syzygium cumini* Skeels on Bharani constellation and keep in grain storage barrel.
2. Procure parasite on *Ficus benghalensis* L. in Magha constellation and keep in grain.
3. Parasite on *Phyllanthus reticulata* Poir. Is kept in house/grain to increase in yield.

4. parasite on *Mangifera indica* L. Is used for high grain yield

Witchcraft

Free from enemies: Parasite on *azadirachta indica* A. Juss. Collected on *jeshta* constellation and kept in residence of enemies.

Evil spirit

1. Parasite on *Limonia acidissima* L. Is used to ward off evil spirit.
2. Parasite on *Ziziphus mauritiana* Lamk is used to get relief from evil spirit.

Discussion and conclusion

Tribal people have faith on forest god and goddesses. They believe that when goddesses are not given due recognition are reverence, they get offended and in their wrath cause diseases and even death. Practice of witchcraft, evil eye and evil spirit causes infections/diseases. The treatment for such diseases have been mentioned in the *koutilya's Arthashastra*, *Atharvaveda* and in *Ayurvedic Samhitas* of *Charakas* and *Susruta*. Tribal people or local inhabitants are still practice to get relief from evil spirits causes infections/diseases. The treatment for such diseases have been mentioned in the *Koutilya's Arthashastra*, *Atharvaveda* and in *Ayurvedic Samhitas* of *charakas* and *susruta*. Tribal people or local inhabitants are still practice to get relief from evil spirits, witchcraft and superstitious causes which affect their day –to day life with the help of plants and offerings like hen, sheep, goat, lipuor, etc. (2)

Present study gives information on high grain yield, relief from ill health, increase hunger, hunger depression, evil eye, evil spirit, animal health, etc. the association of parasite is linked with constellations (*Nakshatra*) which has beneficial effect on mankind.

In recent years modern man has little time to understand the rituals that are mentioned in ancient literature. The ancient people or local inhabitants noticed the mystery of everything around them, and looked at life with awe and wonder. They were receptive to everything and arrived at conclusions which they considered best for their welfare. They were less rational but more intuitive.

Thus, the superstitions, though may be irrelevant today, are the milestones on the road of human understanding and rationalization of cause and effect concern. The ancient literature needs to be tested in modern scientific way (7,11).

Tribal people practice *Dendrophthoea* and *Viscum* for medicinal purpose like bone fracture, abortion, antifertility, jaundice, tonic, etc. these medicinal utilities are tested in tribal life from generation to generation. The tool for testing these claims with modern ethno-pharmacological techniques will highlight biological uses of family *Loranthaceae* for curing disease.

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References

1. Ambasta, S.P. **“The useful plants of India.”** Publication and Information Directorate, CSIR, new Delhi, 166-167 & 681, (1986).
2. Jaggi, O.P. **Folk medicine** Ramlal Puy Atma Ram & Sons, New Delhi (1973).
3. Jain, S.K. **Dictionary of Indian Folk medicine and ethnobotany.** Deep publication, New Delhi, 72 & 187, (1991).
4. Joshi, P **Ethnobotany of the Primitive tribe in Rajasthan.** Printwell publisher, Jaipur, 92, (1995).
5. Kirn, H.S. Hitherto unrecorded three hosts of *Dendrophthoe falcate* (L.F) Etting. *J.Econ. Tax Bot* 495, (1981).
6. Kumbhojkar, M.S., A.S. Upadhye and Kulkarni, D.K. Religious forest patches among mahadeokoli tribal localities-social., cultural and environmental relationship Proc. IV International Congress of **Ethnobiology, Ethnobiology in Human Welfare**, 349-351, (1983).
7. Mukerjee, T.and G.A. Singh superstitions associated with plants in India. *Ancient Sci.Life* 3(1), 42 -44 (1983).
8. Ogale, P.B. **Chikisa Prabhakar** (Marathi) Continental Book Service, Pune – 30,709-710, (1970).
9. Padate, S.N. New host plants for *Dendrophthoe falcate* (L.f) Ettings. *Geobios.*, 7,230 -231, (1980).
10. Rastogi R.P. and B.N Mehrotra **Compendium of Indian Medicinal plant Vol.4** CDRI, Lucknow, Publication and Information Directorate, new Delhi,265 & 727, (1995).
11. Singh, G.A. and T. Mukerjee plants associated with witchcraft and evil eye. *Ancient Sci.life.*, 4(1), 58-60, (1984).