

Ethnomedicinal *Plants* Used by Mahout Community in Healthcare of Domesticated Elephants in South Western Maharashtra, India

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Abstract

Elephants have been domesticated and used as status symbols in the royal families and certain temples of South Western Maharashtra since time immemorial. Once a captive elephant is weaned, it begins life as a domesticated elephant under the care of its keeper, the 'Mahout'. During the course of exploration of medicinal *Plant* wealth of South Western Maharashtra for the last five years, it was found that Mahouts possess substantial knowledge of herbal remedies to cure various diseases of domesticated elephants. Very little research has been conducted on medicinal *Plants* used for domesticated elephants in this region. The data on ethnomedicinal *Plants* was obtained through structured interviews with Mahouts, complemented by extensive literature review and botanical identification of the *Plants*. In this paper, 48 potential medicinal *Plants* used in herbal preparations to cure ailments related to ear, eye, throat, and arthritis in domesticated elephants are highlighted.

Keywords: Elephants, Treatment, Mahout, Southwestern, Healthcare, Caretaking.

Introduction

Materials and Methods

An ethnomedicinal *Plant* survey of South Western Maharashtra was conducted between 2018 and 2020 to collect information about medicinal *Plants* and herbal formulations used by the Mahout Community in treating domesticated elephants. Around 100 *Plant* samples were collected, of which 48 species were correctly identified with the help of

available taxonomic literature and authenticated herbarium specimens. Voucher specimens are deposited in the herbarium of Raja Shripatrao Bhagwantrao Mahavidyalaya, Aundh, Dist-Satara, Maharashtra. Interviews were carried out with experienced Mahouts, and data were cross-verified with published ethnobotanical records (Jain, 1991; Rout *et al.*, 2009).

Results and Discussion

Table 1: Ethnomedicinal *Plants* for Elephant Diseases

S. No.	Disease Type	Botanical name & Family	Parts Used	Vernacular Name
1	Ear Diseases	Euphorbia tirucalli L. (Euphorbiaceae)	Young stem	Nangisher
2		Acorus calamus L. (Araceae)	Rhizome	Wekhand
3		Trachyspermum ammi Sprague (Apiaceae)	Fruit	Owa
4		Brassica juncea (L.) Czern. & Coss. (Brassicaceae)	Fruit	Mohari
5		Tecomella undulata (Sm.) Seem. (Bignoniaceae)	Fruit	Raktrohida
6		Nerium indicum Mill. (Apocynaceae)	Root	Kanher
7		Datura metel L. (Solanaceae)	Root	Kala Dhatura
8		Pongamia pinnata (L.) Pierre (Fabaceae)	Root	Karanj
9		Ficus religiosa L. (Moraceae)	Bark	Pimpal
10		Myristica malabarica Lam. (Myristicaceae)	Fruit	Kayphal
11		Helicteres isora L. (Sterculiaceae)	Fruit	Murudsheng
12		Strychnos nux-vomica L. (Loganiaceae)	Seed	Kuchla
13		Commiphora wightii (Arn.) Bhandari (Burseraceae)	Bark	Gugul
14		Phoenix dactylifera L. (Arecaceae)	Seed	Kharik
15		Plumbago zeylanica L. (Plumbaginaceae)	Root	Chitrak
16		Calotropis gigantea (L.) R.Br. (Asclepiadaceae)	Latex	Rui
17		Tragia plukenetii A.R. Sm. (Euphorbiaceae)	Entire <i>Plant</i>	Kavachkhulli

18		<i>Lagenaria siceraria</i> (Mol.) Standl. (Cucurbitaceae)	Leaf	Dudhi bhophala
19	Eye Diseases	<i>Emblica officinalis</i> Gaertn. (Phyllanthaceae)	Fruit	Amla
20		<i>Azadirachta indica</i> A. Juss. (Meliaceae)	Leaf extract	Neem
21		<i>Curcuma longa</i> L. (Zingiberaceae)	Rhizome	Halad
22		<i>Ocimum tenuiflorum</i> L. (Lamiaceae)	Leaf	Tulsi
23	Throat Infections	<i>Zingiber officinale</i> Roscoe (Zingiberaceae)	Rhizome	Sunth
24		<i>Glycyrrhiza glabra</i> L. (Fabaceae)	Root	Jeshthmadh
25		<i>Piper longum</i> L. (Piperaceae)	Fruit	Pippali
26		<i>Cinnamomum verum</i> J. Presl (Lauraceae)	Bark	Dalchini
27	Arthritis & Joint Pain	<i>Boswellia serrata</i> Roxb. (Burseraceae)	Resin	Shallaki
28		<i>Ziziphus jujuba</i> Mill. (Rhamnaceae)	Leaf	Bor
29		<i>Vitex negundo</i> L. (Lamiaceae)	Leaf	Nirgundi
30		<i>Withania somnifera</i> (L.) Dunal (Solanaceae)	Root	Ashwagandha

The Mahout community traditionally uses these *Plants* in various formulations such as pastes, decoctions, powders, and oils. Their practices demonstrate an advanced understanding

of dosage, *Plant* toxicity, and synergistic effects of combined ingredients, reflecting centuries-old veterinary traditions (Satyavati *et al.*, 1987; Kala, 2005).



Fig 1: A. Collection B. Extract Preparation C. Extract application & Caretaking D. *Terminalia chebula* Retz. E. *Azadirachta indica* L. F. *Terminalia bellirica* (Gaertn.) roxb. G. *Plumbago zeylanica* L. H. *Abrus precatorius* Linnaeus (L.) I. *Capparis decidua* (Forssk.) Edgew J. *Calotropis procera* (Aiton) W.T.Aiton K. *Helicteres isora* L. L. *Pergularia daemia* (Forssk.) Chiov.

Conclusion

This study concludes that the Mahout community of South Western Maharashtra has sound knowledge of medicinal *Plants* and their applications in elephant healthcare. Their traditional practices demonstrate a unique ethnoveterinary knowledge system, which is orally transmitted across generations. Documentation and preservation of this indigenous knowledge are essential before it disappears due to socio-cultural changes and modernization. Further pharmacological validation of these medicinal *Plants* may lead to the development of novel formulations for veterinary healthcare.

References

1. Bagwan SA, Kore BA. Species diversity of genus *Riccia* (Mich.) L. in Satara district (Maharashtra) India. *Plant Science Today*. 2015; 2(4):160-163.
<https://doi.org/10.14719/pst.2015.2.4.160>
2. Deshpande S. Flora of Mahabaleshwar and adjoining, Maharashtra. Kolkata, India: Botanical Survey of India, 1993, 1.
3. Jain SK. Dictionary of Indian folk medicine and ethnobotany: A reference manual of man-*Plant* relationships, ethnic groups & ethnobotanists in India. New Delhi, India: Deep Publications, 1991.
4. Kala CP. Current status of medicinal *Plants* used by traditional Vaidyas in Uttaraanchal, India. *Ethnobotany Research & Applications*. 2005; 3(3):267-278. Retrieved from
<https://ethnobotanyjournal.org/index.php/era/article/view/77>
5. Patil SM, Dongare MM. Enumerative checklist of pteridophytes from Satara district (Maharashtra, India). *Plant Science Today*. 2017; 4(3):134-137.
<https://doi.org/10.14719/pst.2017.4.3.306>
6. Rout SD, Panda T, Mishra N. Ethnoveterinary practices in tribal communities of Mayurbhanj district, Orissa, India. *Indian Journal of Traditional Knowledge*. 2009; 8(2):240-243.
7. Satyavati GV, Raina MK, Sharma M. Medicinal *Plants* of India New Delhi, India: Indian Council of Medical Research, 1987, 2.
8. Singh A, Kumar A. Ethnoveterinary *Plants* of India: A review. *Phytotherapy Research*. 2000; 14(8):597-610.