

Research Article

ISSN Print 2231 – 3648
 Online 2231 – 3656

Available Online at: www.ijpir.com

**International Journal of
 Pharmacy and Industrial
 Research**

**AN ETHNOBOTONICAL STUDY OF MEDICINAL PLANTS IN HAVERI
 DISTRICT OF KARNATAKA, INDIA WITH SPECIAL REFERENCE
 TO BANK OF VARADA RIVER**

*¹Ashwini Vastrad, ²Lalitha B R

¹S S Ayurvedic Medical College, Haveri, Karnataka, India.

²Post graduate Department of Dravyaguna, GAMC, Bangalore, Karnataka, India.

Abstract

The present paper deals with the folklore herbs used in the traditional practices in the area of villages over the bank of Varada river of Haveri district, Karnataka, India to cure various ailments. Now the modern world is realizing the importance of folklore practice and these practitioners do have valuable information about the medicinal plants and their uses since from generations for the cure of many diseases. This survey was carried out during 2009-2010 in view of documenting traditional knowledge as Haveri district is an under explored area having mixed vegetation and is blessed with rich diversity of herbal medicinal plants and well known for the traditional practices for fractures, skin disorders, nervine disorders etc. In an ethno-botanical exploration of this area traditional practitioners were documented for the identification of the plants, local name, parts used, method of preparation of the medicine, mode of administration, duration, and their parameters for the diagnosis of different diseases. During the ethno-medical documentation it was found that totally 68 different plants are used in treating 34 different disorders by 33 folklore practitioners. Among them it was revealed that 19 therapeutic remedies are having classical references in Ayurveda like use of *Abrus precatorius* Linn in skin disorders, *Plumbago zeylanica* Linn in piles, *Mimosa pudica* in uterine disorders, *Cissus quadrangularis* Linn in fractures etc and the rest are considered as anubhuta prayoga. Further research is needed to conserve and develop some selected species of folklore herbs and to preserve the knowledge of indigenous communities.

Keywords: Ailments, Varada river, Anubhuta prayoga.

Introduction

India is a vast country that has tropical weather with variations from region to region. India possesses unique geology and geography, which has influenced the climate and weather of the country.¹ Ethnobotany is the scientific study of the way plants and animals are treated or used by different human cultures. It studies the dynamic relationships between peoples, biota, and environments, from the distant past to the

immediate present.² Haveri is exactly situated in the centre of Karnataka and is blessed with both wet and dry climate resulting rich diversity of medicinal plants. Since from the British period Haveri district is popular for its traditional practices in treating various ailments. Varada river is one among the important water source of Haveri district covering the four major taluks Hangal, Haveri, Shiggaov and Savanur.^{3,4} Varada consists of 64

Author for Correspondence:

Ashwini Vastrad,

E.mail: ashwini.haveri@gmail.com

villages over its river bank with rich medicinal plant source. Hence a research work was taken up to conduct ethno botanical study in Haveri district with special reference to bank of Varada river.

Materials and Methods

- Study area is located in the centre of Karnataka situated between 14.28 & 14.59 latitudes and 75.07 & 75.38 longitudes.

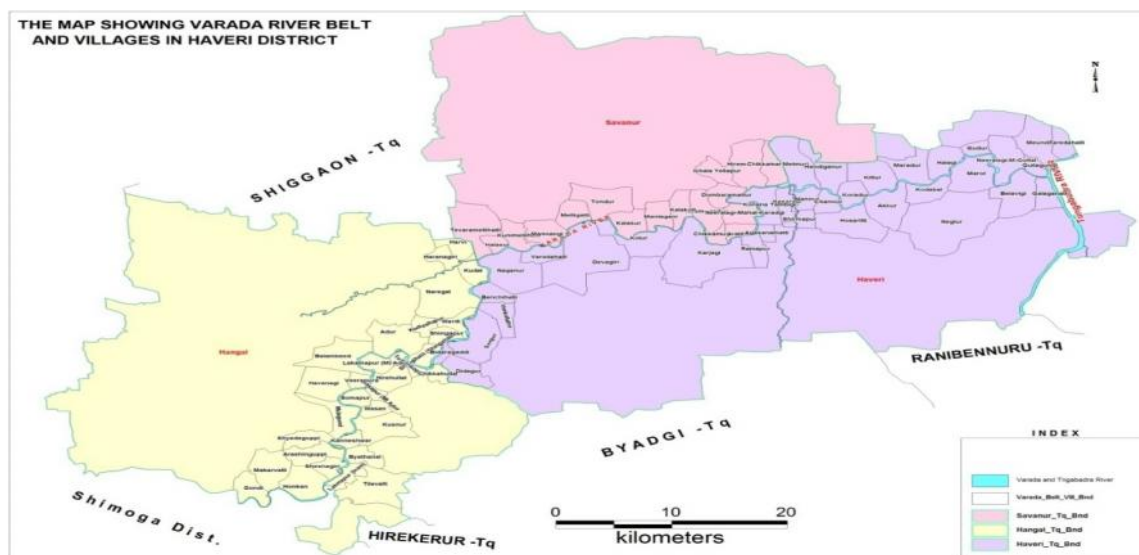


Fig. No. 01: Map showing the Study area⁵

- Bank of Varada river consists of 64 villages with both dry and wet landscape.
- Format and data sheets for the documentation of folklore practices were prepared along with the consent letter.
- 33 folklore practitioners were documented for the identification of the plants, local name, parts used, method of preparation of the medicine, mode of administration, duration, and their parameters for the diagnosis of different diseases.
- Herbarium\ Photograph of selected species was documented. Specimen was identified with the aid of floras.^{6,7}
- Audiovisual medias were used during the documentation for the authenticity.

Results and Discussion

- Towards fulfilling the objective of folklore documentation during the ethnobotanical study totally 33 folklore practitioners were interviewed and the data sheets were documented for their different folklore practices respectively. During this study it was found that totally 68 different plants belonging to 38 different families, 64 species and 63 genera are used in treating 34 different diseases. Among them 37 are herbs, 7 shrubs,

13 trees and 11 are trees. Most of the species from Mimosaceae family (14.8%), Euphobiaceae, Asteraceae, Solanaceae (11.11%), Acanthaceae, Amaranthaceae, Asclepiadaceae, (7.40%), the remaining families Apocynaceae, Aristolochiaceae, Cucurbitaceae, uphorbiaceae, Amaranthaceae, Urticaceae and Zygophyllaceae (3.70%).

- In most of the cases leaves were used predominantly (34.78%) for drug preparation followed by whole plant (30.43%), seeds (19.56%), Fruits (8.69%) and roots (6.52%). Among the drug formulations powder (67.88%), juice (21.42%) were frequently used, paste (10.71%) are less in use. Among them it was revealed that 19 therapeutic remedies are having classical references in Ayurveda like use of *Abrus precatorius* Linn in skin disorders, *Plumbago zeylanica* Linn in piles, *Mimosa pudica* Linn in uterine disorders, *Cissus quadrangularis* Linn in fractures etc and uses like leaf of *Sanseveria cylindrical* Linn in ear discharge, flower of *Spilanthus acmella* Rox in stomatitis, root of *Acalypha indica* Linn in paralysis etc, are anubhuta prayogas. (Practiced from ancestors)

Table No. 01: Showing folklore documentation of Haveri district (Bank of Varada river)

Sl. No.	Name of the plant	Disease	Useful part	Mode of administration
1.	<i>Abutilon indicum</i> Linn	Tenea pedis	Root	External application
2.	<i>Sanseveria cylindrica</i> Linn	Ear discharge and pain	Leaf	Juice extract of leaf is used as ear drops
3.	<i>Spilanthus acmella</i> Linn	Stomatitis, Cough	Flower	Chewing of flower with saliva
4.	<i>Costus ingneus</i> Linn	Madhumeha	Leaf	Chewing and swallowing of leaf
5.	<i>Foeniculum vulgare</i> Linn	Indigestion	Fruit	SI No 5-7 are taken in equal quantity and made fine powder and given orally
6.	<i>Terminalia chebula</i> Linn		Fruit	
7.	<i>Cassia angustifolia</i> Linn		Leaf	
8.	<i>Aristolochia indica</i> Linn	Septic conditions	Root	Root made into paste along with lime juice and given orally
9.	<i>Tinospora cordifolia</i> Linn	Osteoarthritis	Leaf and stem	SI No 9 &10 are taken in equal quantity and made into powder , added with equal quantity of juice of leaf of SI No 11 & given orally
10.	<i>Swertia chirata</i> Linn		Stem	
11.	<i>Aegel marmelos</i> Linn		Leaf	
12.	<i>Cissus quadrangularis</i> R	Fracture	Stem	Stem is used in the form of food.
13.	<i>Withania somnifera</i> Linn	Joint dislocation and fracture	Root	Powder is given orally
14.	<i>Tinospora cordifolia</i> Linn	Tooth ache and Gum disorder	Leaf and stem	SI No 14-17 are taken in equal quantity and made in to fine powder& used as tooth powder.
15.	<i>Adothoda vasica</i> Linn	---	Leaf	
16.	<i>Cassia auriculata</i> Linn	---	Whole plant	
17.	<i>Eunequa sodium chloride</i>	---		
18.	<i>Acacia farnesiana</i> Linn	Septic conditions	Leaf	Juice of leaf is given orally.
19.	<i>Momordia charantia</i> Linn	Ear pain and discharge	Leaf	Juice of leaf is used as ear drops.
20.	<i>Acalypha indica</i> Linn	Chronic wound	Leaf	Oil prepared with leaves of the plant is used externally.
21.	<i>Balanitis aegyptiaca</i> Linn	Epilepsy	Hole plant	Powder
22.	<i>Euphorbia hirta</i> Linn	Skin disorder	Hole plant	Oil prepared with this plant is used externally
23.	<i>Kirganelia reticulata</i> Linn	Burning of feet	Leaf	Paste of the leaf is mixed with water and used for foot bath.
24.	<i>Costus speciosus</i> Linn	Piles	Kanda	Extracted juice of rhizome is used orally.
25.	<i>Leptadenia reticulata</i> Linn	Common cold and nasal block	Latex	Latex is used in the form of nasya.
26.	<i>Securnega leucopyrus</i> Linn	Foreign body in the eye	Leaf and stem	The juice obtained after cutting the stem is blown into the eyes.
27.	<i>Securnega leucopyrus</i> Linn	Diarrhoea	Leaf and stem	The paste of leaf is used orally in severe diarrhea.
28.	<i>Semicarpus anacardium</i> Linn	Tenea pedis	Fruit	The juice obtained after its heating is applied externally followed by ash.
29.	<i>Souropes androgynis</i> Linn	Diabetes mellitus	Leaf	Leaves are used in the form of food.
30.	<i>Gymnema sylvestre</i> Linn	Diabetes mellitus	leaf	Fresh leaves are taken orally
31.	<i>Aegel marmelos</i> Linn	Leucorrhoea	Leaf	Fresh juice of leaves is used orally
32.	<i>Hollarrhena antidysentrica</i> Linn	Tooth ache and gum disorder	Leaf	Leaves are chewed with saliva and swallowed.
33.	<i>Andrographis paniculata</i> Linn	Purities	Whole plant	Powder of dried plant is used orally

- The other folk remedies were documented like use of root paste of *Abutilon indicum* Linn in Tenea pedis, Leaf of *Costus ingneus* Linn in Madhumeha, Root paste of *Aristolochia indica* Linn made with lime juice given orally in septic conditions, stem of *Cissus quadrangularis* Linn and powder of root of *Withania somnifera* Linn used orally in

fractures, the powder made with leaf of *Tinospora cordifolia* Linn, *Adothoda vasica* Linn, *Cassia auriculata* Linn added with *Eunequa sodium chloride* used in tooth ache and gum disorders, leaf juice of *Acacia farnesiana* Linn used orally in septic conditions, whole plant of *Mimosa pudica* Linn is used to treat piles and leucorrhoea,

application of oil prepared with leaf of *Acalypha indica* Linn in chronic wound, oil of whole plant of *Euphorbia hirta* Linn used effectively in skin disorders, fruit juice of *Semicarpus anacardium* Linn in tinea pedis, leaf paste of *Securnega leucopyrus* Linn given orally with butter milk in diarrhea, daily use of leaves of *Souropes androgynis* Linn and *Gymnema sylvestre* Linn found effective in Diabetes mellitus, leaf juice of *Aegle marmelos* Linn and root powder of *Cassia tora* Linn with milk given orally are found effective in leucorrhoea, leaf of *Hollarrhena antidysentrica* Linn is chewed in tooth ache, leaf of *Achyranthus aspera* Linn used in neuritis, paste of leaf of *Gmelina arborea* Linn and *Asperagus racemosus* Linn given orally in fractures. The folk people also claim that use

of compound drug therapies are found more effective in chronic diseases.

- Reveal of popularity level (RPL) and fidelity level (FL) showed that among 68 different plants belonging to 38 different families, 64 species and 63 genera *Tinospora cordifolia* Linn (Guduchi), *Aegle marmelos* Linn (Bilwa), *Aristolochia indica* Linn (Eeshwari), *Hibiscus rosasinensis* Linn(Japa), *Asparagus racemosus* Linn (Shatavari), *Areva lanata* Linn (Pashanabheda) are more commonly and repeatedly used by the folklore practitioners in treating disorders like joints pain, tooth ache, leucorrhoea, abdominal disorders, renal calculi and septic conditions. Further research is needed to conserve and develop some selected species of folklore herbs and to preserve the knowledge of indigenous communities.



Fig. No. 02: *Spilanthus acmella* Linn



Fig. No. 03: *Sanseveria cylindrical* Linn



Fig. No. 04: *Cissus quadrangularis* Linn

References

1. Bdsknowledge.org/dyn[homepage on the internet]. srilanka: Rienprecht enterprise culture,Inc.c2002-03 [updated 2004 july3; cited 2005 July 6]. Available from http // www.google.
2. Society of Ethnobiology's "What is Ethnobiology" webpage Accessed 12 April 2008 ALEXIADES, M.N. (1996) *Selected guidelines for ethnobotanical research: a field manual*. The New York Botanical Garden. New York.

3. Ambalaki hiriyanna, Krishnegouda TS as author: Govt of Karnataka, editors. Gazetteer of Dharwad district, Karnataka: Dharwad ;1997. pp. 8-37.
4. Bhadra wild life sanctuary in Karnataka, Indian journal of tradition knowledge, 3(1):37-50.
5. Ambalaki hiriyanna, Krishnegouda TS as author: Govt of Karnataka, editors. Gazetteer of Dharwad district. Karnataka: Dharwad ;1997.pp.15
6. Saldanha, C.J. 1984. Flora of Karnataka. vol. I, Oxford & IBH Publishing, Co. Pvt. Ltd, New Delhi.
7. Saldanha, C.J. 1996. Flora of Karnataka. vol. II, Oxford & IBH Publishing, Co. Pvt. Ltd, New Delhi.