

## Medicinal Plants Used by Herbal Healers in Narasipura and Manchale Villages of Sagara Taluk, Karnataka, India

Poornima G <sup>1\*</sup>, Manasa M <sup>1</sup>, Rudrappa D <sup>1</sup>, Prashith Kekuda TR <sup>2</sup>

<sup>1</sup> Department of Botany, SRNMN College of Applied Sciences, Balraj Urs Road, Shivamogga-577201, Karnataka, India

<sup>2</sup> Department of Microbiology, SRNMN College of Applied Sciences, Balraj Urs Road, Shivamogga-577201, Karnataka, India

### Abstract

The present study was designed to study the Medicinal plants used by herbal healers in Narasipura and Manchale villages of Sagara Taluk, Karnataka, India. The people, particularly from rural places, depend on herbs for primary health care where ethnomedicinal use of plants has been practiced since time immemorial. Sagara taluk is located in the midst of the Western Ghats region of Shivamogga District, Karnataka State, India. Ethnobotanical field surveys were conducted from January to March 2012 to document the uses of medicinal plants by herbal healers in villages Narasipura and Manchale of Sagaratuluk, Karnataka state, India. A total of 21 plants in Narasipura and 14 plants in Manchale were documented. The information about local name, parts used, type of formulation and disorders for which they were used are documented.

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\*Corresponding Author

Poornima G

E-mail: poo.an30@gmail.com

## INTRODUCTION

India's traditional system of medicine is related to richness of plant and cultural diversity. The indigenous knowledge on medicinal plant utilization not exceeding the resilience of surrounding environment is regarded as an important measure of plant biodiversity conservation. Apart from modern systems of medicines, even today people rely on herbal plants for primary healthcare. This dependency is even more in rural areas where ethnobotanical use of plants has been known since time immemorial. This is because of lack of primary healthcare centers, besides, medicinal plants are easily available natural products, easily formulatable and cost-effective with no side-effects. Tribal people depend on forest for their survival and are aware of the medicinal uses of plants in their surroundings. The traditional folk medicine is mostly unscripted, has been handed down orally from generation to generation (Kingston *et al.*, 2009; Gupta *et al.*, 2010; Rajakumar and Shivanna, 2010).

Sagara taluk is located in the midst of the Western Ghats region (one of the 'hot-spots of biodiversity' in India) of Shivamogga District, Karnataka State, India. The taluk is situated between 13°51' and 14°20'N latitude and between 74°37' and 75°17'E longitude in about the mid-south western part of Karnataka State, India at an altitude of 595m above the mean sea level. The areas selected in this study are the villages Manchale and Narasipura of Sagara Taluk, Karnataka, India. The study area has evergreen, semi-evergreen, moist and dry deciduous forests and is rich in diversity of plants with medicinal value. The area receives an average rainfall of 950 to 2130mm. Agriculture is the main occupation in this area and areca, banana, cotton, ginger, maize, paddy, pepper and sugarcane are the main crops (Rajakumar and Shivanna, 2010). In this study, an ethnobotanical field survey was conducted to document the uses of medicinal plants by herbal healers in villages Narasipura and Manchale.

**MATERIALS AND METHODS**

Regular field visits to the study areas were made for observation and documentation of herbs for a period of three months from first week of January

2012 till last week of March 2012. The places of collection and observation are shown in Figure 1.



**Karnataka State in India**



**Shivamogga District**



**Sagara Taluk**



**Manchale and Narasipura**

**Figure 1: Study Area.**

During field trips, ethnomedicinal information about the plants was recorded through interaction and discussion with herbal healers of study area along with field observation. Medicinal plants were documented and detailed field notes were taken along with voucher number, locality, habit, floral characteristics, nature of the fruit, colour of the ripe fruit, local name, local medicinal uses, etc. The identification of plants was made by referring flora (Gamble, 1995; Ramaswamy *et al.*, 2001). Herbaria were prepared for selected plants.

**RESULTS AND DISCUSSION**

**Plants Documented in Narasipura**

In the study area Narasipura, a total of 21 plant species belonging to 18 genera and 15 families were documented and these plants were being used to treat 21 human ailments (Table 1).

**Table 1:** Plants used by herbal healer in Narasipura.

Plant name	Family	Local Name	Part Used	Preparation	Medicinal Uses
<i>Achyranthus aspera</i> Linn.	Amaranthaceae	Uttrani	Leaves	Paste	Brain disorders
<i>Plumbago zylanica</i> Linn.	Plumbaginaceae	Bili Chitramoola	Root	Paste	Jaundice, Hepatitis B, Hepatitis C
<i>Plumbago indica</i> Linn.	Plumbaginaceae	Kempu chitramoola	Root	Paste	Hepatitis A
<i>Dipteracanthus prostrates</i>	Acanthaceae	Kalighavani	Leaves	Decoction	Ear diseases and cancer
<i>Rauwolfia serpentina</i> Benth.	Apocyanaceae	Sarpaghandi	Root	Paste or decoction	Very effective to control high Blood Pressure
<i>Zinziber officinalis</i> Rosc.	Zinziberaceae	Shunti	Rhizome	Decoction with tea	Analgesic
<i>Bacopa monniera</i> Pennel.	Scrophulariaceae	Neeru brahmi	Leaves	Juice	Bronchitis and diarrhoea in children
<i>Sauropus andragynus</i>	Euphorbiaceae	Chakramuni	Leaves	Decoction	Vitamin deficiency
<i>Croton roxburghii</i>	Euphorbiaceae	Somare	Root	Paste with <i>Myristica fragrans</i> fruit	Tumors
<i>Aristolochia indica</i> Linn.	Aristolochiaceae	Eshwari balli	Root	Root extract with pepper	Applied on spot of snake bite and also taken to cure high fever
<i>Ficus racemosa</i> Linn.	Moraceae	Atti mara	Root	Paste with water	Diabetes mellitus
<i>Ficus krishnae</i>	Moraceae	Krishna aala	Root	Paste	Liver disorders
<i>Dodonaea viscosa</i> N,jaeq.	Sapindaceae	Angaraka	Bark	Strong decoction	To balance Hb count in women
<i>Mangifera indica</i> Linn.	Anacardiaceae	Maavu	Bark	Powdered and boiled with water	To treat mental diseases
<i>Sapindus laurifolia</i> Vahl.	Sapindaceae	Antavaala	Raw Fruit	Extract of it	Lungs blockage
<i>Ocimum kilimandscharicum</i>	Lamiaceae	Karpura tulasi	Leaves	Paste and juice	Paste for acne treatment and juice for cough
<i>Ocimum tenuiflorum</i>	Lamiaceae	Shri tualsi	Leaves	Powder with ghee or decoction	To relieve stress and also to cure respiratory disorders
<i>Tectona grandis</i> Linn.	Verbenaceae	Sagvani	Leaves	Paste	Dermatitis
<i>Nerium indicum</i> Mill.	Apocyanaceae	Kanagale	Bark and root	Paste with Calatropis leaves.	Cancer tumors of stomach
<i>Tinospora cardifolia</i> Miers.	Menispermaceae	Amrutha balli	Leaves	Paste	Diabetes mellitus & heart weakness
<i>Tylophora indica</i> W&A.	Asclepiadeceae	Aadu muttada soppu	Leaves, bark and roots	Paste or powder	Asthma and lung inflammation

Maximum plant species documented were from the families Plumbaginaceae, Apocyanaceae, Euphorbiaceae, Moraceae, etc. The number of plants from each family is shown in Figure 2. Various plant parts were used, among which

leaves and roots were more commonly used followed by bark and stem (Figure 3). The most preferred type of drug formulation in Narasipura is paste and decoction followed by powder, latex and juice (Figure 4).

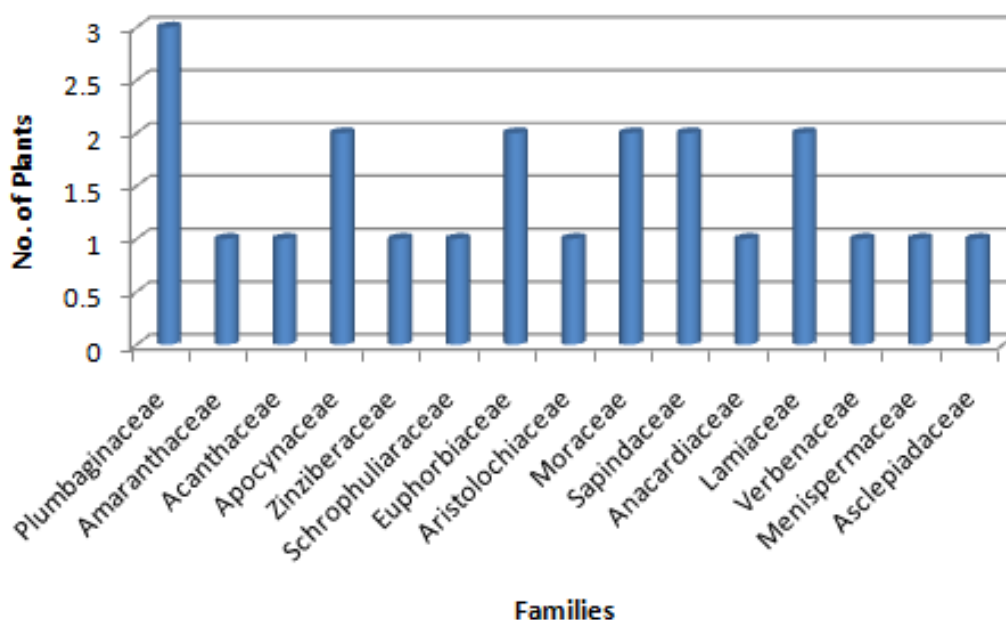


Figure 2: Total number of plants in each family.

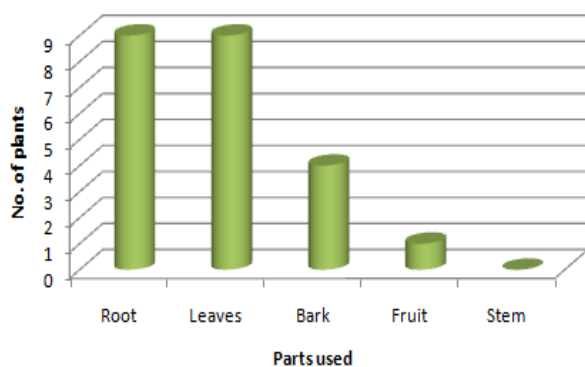


Figure 3: Plant parts used.

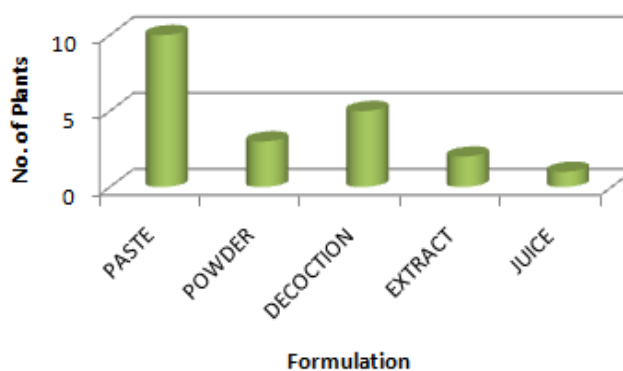


Figure 4: Types of formulation.

**Plants Documented in Manchale**

In the study area Manchale, a total of 15 plants belonging to 12 families were used to treat 18 human ailments (Table 2).

Maximum plant species used were from the families Apocyanaceae and Verbenaceae. Number of plants used from each family is shown in Figure 5. The frequently used plant parts were leaves followed by root, bark and stem (Figure 6). Decoction formulation was more commonly used than paste, powder and juice (Figure 7).

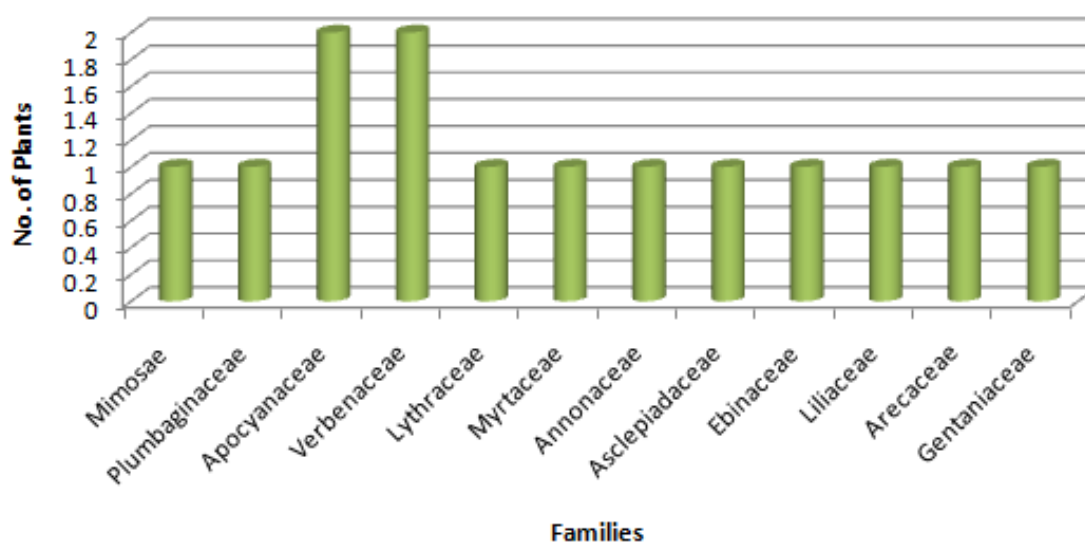
Most of the plants documented were herbs followed by shrubs, trees and climbers. The plants were given as herbal medicines to cure various kinds of ailments ranging from skin to brain disorders. Majority of the plants in Narasipura were used for treating diabetes, liver

and lung disorders and in Manchale menstrual disorders and arthritis. In both Narasipura and Manchale, the healers preferred use of a single plant for a particular disease rather than preparing medicines by combination of plants.

Some plants are widely distributed throughout the state and same plants are used to treat different ailments by different herbal healers. *Rauwolfia serpentina* is best known for its medicinal properties. In Narasipura, the decoction of root is used for controlling high blood pressure, whereas same is used as paste for snake bites in region of Bhadra Wild Life Scantuary (Parinitha et al., 2004). In coastal Karnataka, the root paste of the plant is used by a herbal healer to treat herpes and this has proven to be very effective (Bhandary and Chandrashekar, 2011).

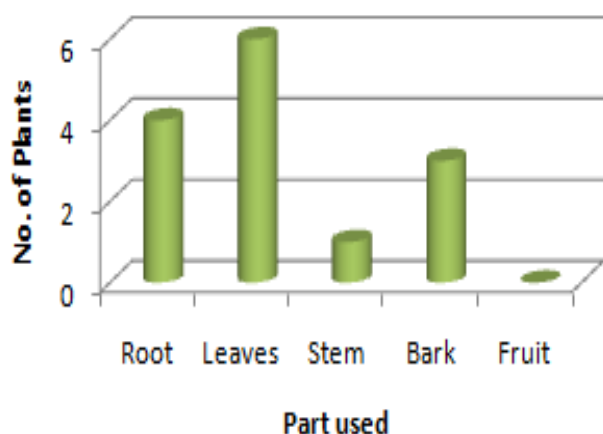
**Table 2:** Plants used by herbal healer in Manchale.

Plant name	Family	Local Name	Part Used	Preparation	Medicinal Uses
<i>Mimosa pudica</i> Linn.	Mimosae	Nachike mullu	Root	Paste	Menorrhagia control and control of high BP
<i>Plumbago auriculata</i>	Plumbaginaceae	Neeli chitramoola	Root	Paste with water	Piles
<i>Tabernaemontana divaricata</i>	Apocyanaceae	Nandi batlu	Bark	Decoction	For Healthy pregnancy
<i>Vitex negundo</i> Linn.	Verbenaceae	Kari lakki	Leaves	Powder in water	Curing of arthritis
<i>Lawsonia inermis</i>	Lythraceae	Madrangi	Leaves	Fresh leaves are directly taken	Amenorrhoea and dysmenorrhoea, balance of Hb count, ulcers.
<i>Pomenta officinalis</i>	Myrtaceae	All-spice	Leaves	Decoction	As a stimulant
<i>Polyalthia longifolia</i>	Annonaceae	-	Bark	-	To prevent abortion in pregnant women
<i>Gymnema sylvestre</i> Retz.	Asclepiadaceae	Madhunashini	Leaves	Extract as tonic	Diabetes and also to lose weight
<i>Diospyros montana</i> Roxb.	Ebenaceae	Jagalaganti mara	Bark	Decoction	Liver disorders, Jaundice, Kidney stones & Hepatitis B.
<i>Asparagus racemosus</i> Wild.	Liliaceae	Shatavari	Fasciculated roots	Decoction or paste with water	Dysentery, Diarrhea and menstrual problems.
<i>Areca catechu</i> Linn.	Arecaceae	Adike	Root	Boiled with water	Insect bites and skin allergies
<i>Canscora decurrens</i>	Gentianaceae	Shanka pushpa	Leaves	Decoction or tonic	Urinary tract infections
<i>Gmelina arborea</i>	Verbenaceae	Shivane	Leaves	Paste mixed with dosa batter	Arthritis
<i>Ervatamia heyneana</i> Stapf.	Apocyanaceae	Maddarasa	Stem	Latex used	Applied to throat to treat tonsils

**Figure 5:** Number of plants from each family.

*Tinospora cardifolia* is another such well known medicinal plant which is popularly called as 'Amrutha Balli'. In our study, the leaf paste is

used to treat diabetes and heart weakness in Narasipura, while the ground stem of the climber is taken orally for 5 days to cure malaria in Kargal



**Figure 6:** Plant parts used.

region (Rajakumar and Shivanna, 2010). In Bhadravathi taluk, the leaf paste with turmeric powder is applied externally on boils and for itchy skin (Shivanna and Rajakumar, 2010).

In our study, *Vitex negundo* leaf powder was used in Manchale to treat arthritis, whereas leaf paste with lime juice was applied externally to treat ring worm in Bhadra Scantuary area (Parinitha *et al.*, 2004) and leaf juice is used to treat poisonous bites in cattle in Uttar Kannada district by a herbal healer (Harsha *et al.*, 2005).

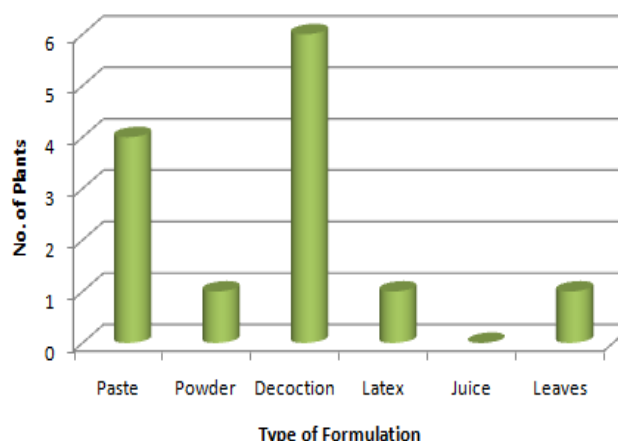
*Ervatamia heyniana* stem latex was applied to throat to treat tonsils in Manchale, crushed bark with water was used for treating dysentery and diarrhea in Uttar Kannada (Harsha *et al.*, 2005). *Lawsonia inermis* leaves are used in treatment of all kinds of menstrual disorders in Manchale, whereas same is used in treatment of acne in Bhadra Sanctuary (Parinitha *et al.*, 2004).

## CONCLUSIONS

The entnomedicinal knowledge about plants is vital in primary healthcare system. High costs coupled with side effects of synthetic drugs are driving people towards herbal medicines. These plants are to be scientifically evaluated and conserved for well being of mankind. These herbal formulations need further pharmacological investigations to prove their efficacy and for their use as effective drugs in treatment of many human diseases.

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**Figure 7:** Types of Formulation.

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