



# ETHNOBOTANICAL DOCUMENTATION OF RUBIACEAE FLORA FROM KINWAT REGION OF MAHARASHTRA.

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## ABSTRACT

An ethnobotanical survey for collecting information about the uses of medicinal plants belonging to family rubiaceae from Kinwat region was undertaken. Survey was done by collecting information from the experienced ethno medicinal practitioners of this region. An authentic and reliable information about plants and their medicinal uses were collected and documented. From the survey we reported seventeen species of rubiaceae were used for different medicinal purposes by the tribal peoples from Kinwat regions of Nanded District, Maharashtra for treating and curing ailments.

**Key Words:** Rubiaceae, Kinwat forest.

## INTRODUCTION

Medicinal plants have played vital role in the traditional system of medicine in the healing of different types of diseases [1] This system of medicine is currently the fastest growing medical field with herbal therapies becoming increasingly popular. Traditional medicine is considered more holistic, acceptable, accessible and low cost and proven to be safe and that is why preferred by local people. The tribal people live and rely on plants and plant products and are using traditional medicine system for centuries. The traditional medicinal practices are an important part of the primary health care system in developing world [2].

From several thousand years plants have been used in traditional medicine. In India thousands of species are known to have medicinal value and the use of different parts of several medicinal plants to cure specific ailments. Plants are the richest resource of drugs of traditional systems of medicine, modern medicine, food supplements, folk medicines, pharmaceutical intermediates and chemical entities for synthetic drugs. Local people develops new therapeutic protocols using medicinal plants against certain diseases through their indigenous experiences transferred to them from their ancestors. The rural population especially tribals mostly dependent upon medicinal plants for the treatment of their ailments. This ancient knowledge of use of medicinal plants is really a unique asset that needs to be studied and preserved too. It would help for the welfare of entire mankind. The main aim of the present study is to survey and collect information on plants of family rubiaceae used traditionally by a different tribal community from Kinwat, region of Maharashtra. Kinwat forest is located in northern part of Nanded district. Geographical position of the Kinwat is 19° 25 to 19° 55 N latitude and 77° 51 to 78° 19 E longitude. The total area of land of Kinwat Taluka is 201235 Square Kilometers, out of that 57256 Square Kms covered by forest area which are inhabited by tribal population of aborigines like Andh, Kolam, Gond, Naikede and Pradhan.

The rubiaceae family is widespread and occurs in all major regions of the world. The family comprises near about 13,143 species and 611 genera by which it is the fourth largest angiosperm family [3]. According to Naik [4] in Marathwada the rubiaceae is represented by 18 genera and 38 species. This family is characterized by the production of bioactive metabolites with great pharmacological potential. In recent years rubiaceae species have been thoroughly studied from a phytochemical view point. The plant shows huge diversity of substances like alkaloids, anthraquinones, flavonoides & other phenolic derivatives [5].

## MATERIALS AND METHODS

The ethnobotanical survey was conducted at Kinwat forest of Nanded district. Several field trips were carried out nearby villages of Kinwat during June 2020 to June 2021. The ethnobotanical data collected and presented here is based on direct visits, personal observations of treated peoples and interviews with traditional healers namely medicine men, hakims, vaidus and old aged people with knowledge of folklore medicines etc. The collected data were cross checked by using literature. The information about plants from rubiaceae was documented in a data sheet (Table 1). The data included the local name, botanical name, useful plant parts, and their utility as remedy for treating human diseases.

The specimens collected and identified by the tribal people from the field were brought to laboratory. The identity of specimens were confirmed by using literature mentioned in various floras. [4,6,7,8] The voucher specimens are deposited in department. From the collected material leaves and stem of the plants were dried under shed and fine powder was prepared. The powder was kept in small plastic bags with proper labeling for further scientific analysis. Plants used for various ailments were compared with published literature and are tabulated in sheet along with its ethno medical application.

**Table No. 1. List of medicinal plants of family Rubiaceae used for various diseases.**

Sr. no.	Botanical Name	Common name	Plant parts Used	Medicinal use
1.	<i>Catunaregum spinosa</i>	Mountain pomegranate	Leaves	Molluscicidal, Antioxidant, Antidiabetic, Inflammatory activities.
2.	<i>Canthium coromendelicum</i>	Kana	Leaves, stem	Anticancerous properties.
3.	<i>Dentella repens</i>	Creeping dentella	Leaves, stem	Eaten as vegetable to cure constipation.
4.	<i>Gardenia jasmenoides</i>	Cape jasmine	Leaves, stem	Anti-inflammatory and Antipyretic effects.
5.	<i>Gardenia resinifera</i>	Dikamali	Leaves, Stem	Increases appetite, relieves pain of bronchitis, vomiting & constipation.
6.	<i>Gardenia latifolia</i>	Papra	Leaves, stem	Cure skin diseases, remove kidney stone, used in stomach troubles, constipation.
7.	<i>Hedyotis corymbosa</i>	Diamond flower	Leaves , stem	Liver disorder.
8.	<i>Hedyotis herbaceae</i>	Cluster flower	Leaves, stem	Fever, verminosis, asthma, bronchitis & ulcers.
9.	<i>Haldina cardifolia</i>	Haldu	Leaves, stem	Skin diseases, wounds, vomiting, intestinal worms, indigestion and the diseases of the liver.
10.	<i>Hamelia patens</i>	Firebush	Leaves, stem	Headache, asthma, and dysentery.

11.	<i>Ixora coccinea</i>	Jungle geranium	Leaves, stem	Treat stomach ache, wounds, diarrhea and gonorrhea.
12.	<i>Ixora chinensis</i>	Pendkuli	Leaves, stem	Bronchial disorders, Headache.
13.	<i>Morinda citrifolia</i>	Bartondi	Leaves, stem	High blood pressure, arthritis, ulcers, depression, burns, fever, intestinal worms, joint problems.
14.	<i>Mitragyna parvifolia</i>	Kadamb	Leaves, stem	Muscular pain, gynecological disorders, cough,
15.	<i>Pentas lanceolata</i>	Egyptian starcluster	Leaves, stem	Antibiotics, Painkillers, Anti-inflammatory medicines.
16.	<i>Spermacoce articularis</i>	Shaggy buttonweed	Leaves, stem	Treatment of malaria, diarrhea, digestive problems, skin diseases, fever, headache.
17.	<i>Tamilnadia uliginosa</i>	Divine jasmine	Leaves, stem	Diarrhea, dysentery, ulcer, inflammation, wounds, tumor & skin diseases.

## RESULTS AND DISCUSSION

The above information is authentic and collected from old aged people with knowledge of folklore medicines and medicinal practitioners of this region. In laboratory we have confirmed its identity by observing and comparing their characters in dedicated floras and reference papers. Most of these drugs are used as decoctions or infusions of plants as traditional herbal remedies are based on inherited knowledge and observed experiences. Tribal people use a variety of species from the forest in preparation of traditional medicines to cure health diseases. The information mentioned in this study was collected from experienced practitioners. From the study it is observed that most of the plants from rubiaceae family are of having medicinal properties [3]. The information received from this study indicates that plants of rubiaceae family like *Gardenia jasmenoides*, *Ixora coccinea*, *Ixora chinensis*, *Hamelia patens*, *Morinda citrifolia*, *Mitragyna parvifolia*, *Haldina cardifolia*, *Gardenia resinifera*, *Gardenia latifolia* shows wide range of health benefits. Simillar types of observation has also reported by Asman Sadino et. al. [9.] During literature studies on ethnobotanical properties of plants from rubiaceae family it is found that the plant *Canthium coromendelicum* has anticancer properties. While drugs prepared from plant *Gardenia latifolia* are used to remove kidney stone, as well as used in stomach troubles. Common plant from rubiaceae family *Morinda citrifolia* used against high blood pressure, arthritis, ulcers, depression, intestinal worms, joint problems.

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