

## Ethnomedicinal Uses of Shrub species by Tribals of Borra Panchayat, Ananthagiri Mandalam, Visakhapatnam District, Andhra Pradesh, India.

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**ABSTRACT:** To elucidate the medicinally important Shrub plants and their role in the health cares of the villagers living in Borra panchayat, Ananthagiri Mandalam, Visakhapatnam district of Andhra Pradesh, India. **Methods:** Interviews and detailed personal discussions were conducted with the herbalist and local people to identify plants and collect the medicinal information. The medicinal important plants were botanically identified. Totally 50 species of 37 genera belonging to 24 families were reported with ethnomedicinal values. Leaves are the mostly used part to prepare medicine. Generally fresh parts are used. Attention should be made on proper exploitation and utilization of these medicinally important plants.

**KEY WORDS:** Ethnomedicinal uses, Shrub species, Tribals, Borra panchayat, Ananthagiri Mandalam, Visakhapatnam District.

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### I. INTRODUCTION

Tribal communities are considered to be forest dwellers living in harmony with their environment. They depend heavily on plants and plant products for making food, forage, fire, beverages and drinks, dye stuff and colouring matters, edible and non-edible oils, construction of dwellings, making household implements, in religious ceremonies, magi co-religious rituals etc. a close association with nature has enabled tribal people to observe and scrutinize the rich flora and fauna around them for developing their own traditional knowledge and over the years, they have developed a great deal of knowledge on the use of plants and plant products as herbal remedies for various ailments.

Every country has brought out herbal and *materia medica* with rich folk lore, recipes, prescriptions, etc. indicating the application of crude drugs to be very ancient. *Rig-Veda*, which is considered to be the oldest available record in India, dating back to 4000-5000 B.C. recounts some medicinal plants. *Atharvaveda*, another religious book of Hindus, has described about 2000 plants having medicinal properties. *Sushruta Samhita* (1000 B.C.) further records the medicinal virtues of 700 plants. Later on, there have been a number of workers from time to time who have described the medicinal importance of plants, namely Charka, Watts, Kirtikar and Basu, Chopra, Nadkarni, etc. our present day knowledge of Indian *Materia Medica* accounts for nearly 3500 species under various crude drugs, both of indigenous and exotic origin.

Medicinal plants are nature's gift to mankind and are rich heritage of India. India is well known as an "Emporium of medicinal plants". About 70% of the rural folk depend on medicinal plants for their health care. The Third World nations of Asia are rich in biodiversity and the indigenous knowledge particularly the traditional ethno medical practices. India is a treasure of biodiversity which host a large variety of plants and ranks tenth among plant rich countries of the world and fourth among the Asian countries.

India is considered as one of the 12 mega-biodiversity countries of the world having rich vegetation of about 45,000 vascular plants, with concentrated hotspots in the regions of Eastern Himalayas, Western Ghats and Andaman & Nicobar Islands. Of these, the folk medicine system of India use about 5,000 plant species with about 25,000 formulations for treating a variety of ailments, whereas the tribal medicine involves the use of over 8,000 wild plants with about 1,75,000 specific preparations/applications. The classical indigenous systems of Indian medicine prescribe 10,000 designated formulations. In recent times with the increased knowledge of Himalayan communities, the social scientists are taking interest in ethno-medicinal studies. Many works have been reported specially from among the rural and tribal communities of India (Choudhury, 2000; Bhadra and Tirkey, 1997; Sharma Thakur, 1997). Ray and Sharma (2005) have given a description of ethnomedicinal beliefs and practices prevalent among the tribal community of Andhra Pradesh. Kumari (2006) gave an account on the concept of illness and disease and the application of folk medicine of Jharkhand.

## II. STUDY AREA

About 95 percent of the population in Borra Panchayat is identified as tribal people. The elevation of this area is 750 m. The panchayat comprises fourteen villages with 200 families and a total population of 1,900 people. The tribals in this area belong to Bagata, Kutia, Nooka Dora and Valmiki tribes. The demarcation of reserve forest falls close to the inhabited villages and is a source of conflict between the tribals and the forest department. Tribals use the forests as sources of NWFPs, fuel wood, housing materials, medicinal herbs, water and irrigation, and for grazing their cattle, hunting and charcoal making.

Several different NWFPs in Borra Panchayat are collected by tribal women such as adda leaves (*Bauhinia vahlii*) used for sowing plates, karaka (*Myrobalanus chebula*), usiri or amla fruits (*Emblica officinalis*), tamarind (*Tamarindus indica*), nalla jeedi or marking nuts (*Semecarpus anacardium*), kanuga (*Pongamia glabra*), jack (*Artocarpus heterophyllus*), and mango (*Mangifera indica*). It is very labor intensive to collect many of these forest products. In the case of adda leaves and tamarind, women play a major role in collecting, drying, packing them into baskets and carrying the processed products to the shandy. Stall feeding of cattle is not practiced in this area. Men take the cattle out for grazing and travel anywhere between 4 to 10 km from their villages. For firewood, both men and women travel 2 to 3 km once every two days. Women, however, spend more time collecting dry twigs and logs whereas men fell trees and take them back to the village. It is women, however, who go for firewood collection, especially during the agricultural season when men are busy plowing the fields. It is not uncommon for women to gather wild tubers and roots while collecting firewood.

## III. Material And Methods

The field survey was conducted in different localities of Borra panchayat, Visakhapatnam district. In the interview survey with 20 herbalist healers and 50 households, the authors used a structured questionnaire. The questionnaire items included each healer's age, their experience of school education and medicinal plant(s) used for a particular disease were recorded. In the case of herbalist healers his/her age at the first practice of herbal therapy was also noted. For the medicinal plants, which were used by the healers and households, their vernacular names in Tamil were recorded. All the plants collected were deposited as herbarium in Mrs. A.V.N.Collage, Botany Department, Visakhapatnam, and Andhra Pradesh, India. For all the specimens, the voucher numbers were given, and they were botanically identified by one of the authors (SS) with the help of Flora of Andhra Pradesh.

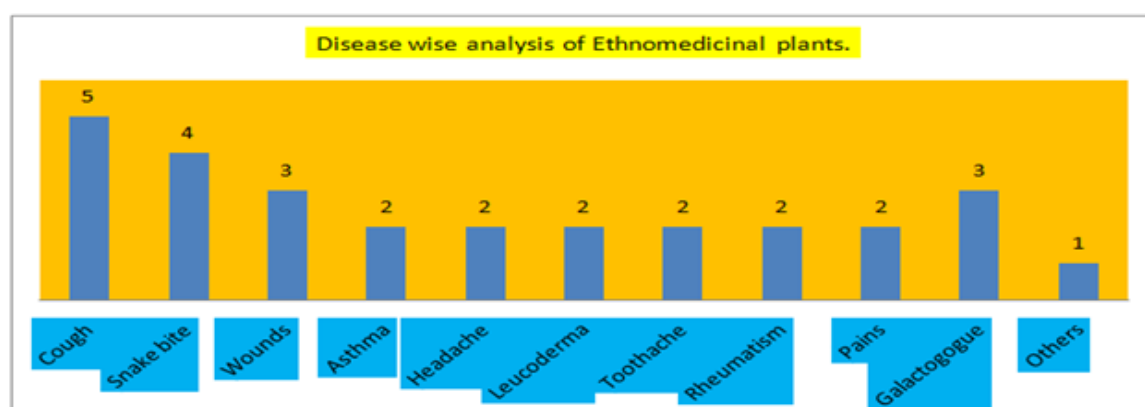
**Table 1. Ethnomedicinal plants used by the Borra panchayat tribal people.**

S.No	Botanical name	Family	Vernacular name	Mode of administration and dosage
1.	<i>Adhatoda zeylanica</i> Medik.	Acanthaceae	Addasaram	<b>ASTHMA:</b> Half a spoon of shade dried leaf powder mixed with a spoonful of honey is administered before breakfast for 45 days. Dried leaves are made into cigarette pipes and the smoke is inhaled.
2.	<i>Anisomeles malabarica</i> (Linn.) R. Br	Lamiaceae	Maga beera	<b>FEVER &amp; *COLD:</b> Steam boiled leaves are made into paste and two spoons of it is administered once a day for 3 days.
3.	<i>Barleria prionitis</i> Linn.	Acanthaceae	Mullagorinta	<b>COUGH:</b> Whole plant burnt and made into powder. Half spoon of powder mixed with honey is taken orally.
4.	<i>Breynia retusa</i> (Dennst.) Alston	Euphorbiaceae	Gudilingam chettu	<b>STIFF HANDS IN CHILDREN:</b> One spoon of root paste is administered daily once and also a small piece of root is tied around the neck.
5.	<i>Butea superba</i> Roxb.	Fabaceae	Palasamu	<b>SNAKE BITE:</b> Flowers are ground with the leaves of <i>Cinnamomum zeylanicum</i> and the paste is administered orally twice a day.
6.	<i>Calotropis gigantea</i> (Linn.) R. Br. ex Ait.	Asclepiadaceae	Nalla jilledu	<b>ASTHMA:</b> Dried flower powder mixed with jaggery is made into soap nut seed sized pills. One pill is administered daily once.
7.	<i>Calotropis procera</i> (Ait.) R. Br.	Asclepiadaceae	Tella jilledu	<b>SNAKE BITE:</b> Leaves crushed with stem barks of <i>Strychnos nux-vomica</i> , <i>Cassia auriculata</i> and small quantities of roots of <i>Rauwolfia serpentina</i> and <i>Tinospora cordifolia</i> are made into soap nut seed sized tablets. One tablet is administered twice a day till cure.
8.	<i>Calycopteris floribunda</i> Lam.	Combretaceae	Adavijama	<b>WOUNDS &amp; *BOILS:</b> Stem bark paste is applied on the affected areas twice a day till cure.

## IV. RESULT AND DISCUSSION

The results of the present survey are presented in Table 1. A total of 50 plant species (belonging to 37 genera and 24 families) of ethnobotanical interest were reported. For each species the following ethnobotanical information were provided: botanical name, vernacular name, family, plant parts used and their mode of administration in treatment of diseases. The dominant families of ethnobotanical importance are Euphorbiaceae,

Caesalpiniaceae and Fabaceae (5 species), Verbenaceae (4 species), Acanthaceae, Asclepiadaceae and Vitaceae (3 species), Lamiaceae, Combretaceae, Apocynaceae, Cactaceae and Plumbaginaceae (2 species), rest of the families each one with single species. The medicinal plants based on their use in treatment of 29 different diseases were found to be very valuable such as Jaundice, rheumatism, asthma, diabetes, piles, Leucoderma, paralysis, snake bite, etc. The 50 medicinal plants were reported to be used in curing 29 diseases, of which 5 species each for used in the treatment of Cough, four species each for treating snake bite, three each in treating wounds and also three species for each in treating jaundice. Information on plant species regarding botanical name, local name, family and medicinal uses are presented. The Most of the herbal remedies are taken externally in the form of extract and decoction. A significant finding of this study is that, most of the plants collected in Borra panchayat, Ananthagiri Mandalam hill range of Visakhapatnam District are the first reports. Among the different plant parts used for the preparation of medicine the leaves were the most important and frequently used and majority of the remedies reported in the present study are by administering the leaves orally.



## V. CONCLUSION

In conclusion, over exploitation of plant species in the name of medicine may lead some species ultimately to the disappearance in future. Therefore, attention should be made on proper exploitation and utilization of these plants. The findings of this study may become basic leads for chemical, pharmacological, clinical and biochemical investigations, which ultimately may birth to drug discovery. Therefore, phytochemical and pharmacological values of these medicinally important plants should also be tested.

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