



Some common medicinal plants used by the Nayaka community, Savandurga forest of Magadi taluk, Bangalore rural district, Karnataka, India

P. S. Udayan*, Sathesh George, K. V. Tushar, Indira Balachandran.

Centre for Medicinal Plants Research (CMPR), Arya Vaidya Sala, Kottakkal, Changuvetty, Kottakkal, Malappuram, District, Kerala - 676 503.

Abstract

Objectives: To preserve and disseminate the traditional knowledge. **Materials and methods:** Field survey and discussion methods have been used for the collection of data. **Results and discussion:** A list of 45 flowering plants belonging to 41 Genera and 26 families, which are used by Nayaka community near Savandurga forest, Bangalore rural district, with all the species in alphabetical order along with other details of the plant is highlighted here.

Key words: Medicinal plants, Nayaka community, Savandurga

1. Introduction

An exploratory survey was conducted in the Savandurga and adjoining forest areas of Bangalore rural district, as a part of a project on survey and collection of medicinal plants for establishing a medicinal plant Germplasm Bank at Kottakkal, Malappuram district, Kerala.

Savandurga Reserve Forest is situated in Magadi taluk of Bangalore rural district. The latitude of the study area is 12° 55' N, longitude is 77° 19' E and the altitude ranges from 800-970 m above MSL. The vegetation is dry deciduous mixed with scrub jungles. In some places near

the summit of rocky boulders where the forest is in a patchy pocket, a few moist deciduous elements have also been noticed. The green cover is seen soon after monsoon and remains till the end of December; otherwise the forest will be dry with open canopies in major periods. The landscape of this forest dominated by huge rocky hills with barren boulders strewn along the valleys, receive low rainfall and the sandy soil derived from the granite gneiss does not retain moisture for longer period resulting in the characteristic stunted growth of trees. These forests are however known to be very rich in medicinal plants.

*Corresponding author

E-mail: psudayan@rediffmail.com

Table 1
Uses and Other details of the plants

Sl. No	Botanical Name	Family	Voucher number	Local Name (Kannada)	Part Used	Uses
1.	<i>Abrus precatorius</i> L.	Fabaceae	02192	Gulagangi	Leaves	5 pinnate leaves after chewing the juice taken internally for two days, twice a day for cold, throat problems and as a sound-clearing agent.
2.	<i>Acacia caesia</i> (L.) Willd.	Mimosaceae	02219	Kadu seege	Stem bark	Paste prepared from stem bark is applied externally for one week, once a day for skin diseases.
3.	<i>Acacia leucophloea</i> (Roxb.) Willd.	Mimosaceae	0364	Thapalada	Stem bark	Stem bark mixed with red soil and cow's urine after boiling is mara externally applied twice a day for 3-4 days for swellings and joint pain.
4.	<i>Acacia pennata</i> (L.) Willd.	Mimosaceae	02183	Kaadu seege	Leaves	Leaves used as vegetables to get bone strength.
5.	<i>Acacia sinuata</i> (Lour.) Merr.	Mimosaceae	02240	Sigeballi	Fruits	Fruit pulp applied over the head and washed after 5 minutes as a hair tonic.
6.	<i>Acmella calva</i> (DC.) Jansen	Asteraceae	0354	Vana mugilu	Flower	Flowers used against toothache and for speech clearing.
7.	<i>Alangium salvifolium</i> (L.f.) Wang.	Alangiaceae	02231	Ankolae mara	Stem bark	Stem bark of the plant mixed with banana taken internally thrice a day for 3 days against Hernia and Indigestion
8.	<i>Andrographis paniculata</i> (Burm.f.) Wall. ex Nees	Acanthaceae	0351	Nilabevu	Leaves	Juice prepared from the leaves is taken internally twice a day against fever.
9.	<i>Argemone mexicana</i> L.	Papaveraceae	0355	Arisina dattoora	Seeds and Latex	10 g of powdered seeds mixed with 100 ml vangemara (Pongamia) oil is applied externally 4 times a day for 15 days against skin diseases.
10.	<i>Aristolochia indica</i> L.	Aristolochiaceae	02208	Eeswari balli	Root	10 g root powder mixed with equal quantity of sandal wood paste is applied externally twice a day for 15 days against tumor and other skin problems. 15 g root paste taken internally once a day for stomach problems and ulcer, until the pain ceases.

11.	<i>Azadirachta indica</i> A. Juss.	Meliaceae	0363	Bevina mara	Stem bark	Decoction prepared using the stem bark is taken empty stomach against body pain for 3 days.
12.	<i>Bambusa bambos</i> (L.) Voss	Poaceae	0356	Bidiru	Grains	Rice prepared from the grains of Bamboo whose stem is infested by Sigare (<i>Dendrophthoe falcata</i>) is taken internally for relief from all diseases (believed as Sanjeevani).
13.	<i>Cansjera rheedii</i> J.F. Gmel.	Opiliaceae	0365	Bendli ambi	Leaves	“Sambar” prepared using leaves of the plant is consumed as body stimulant irrespective of the season.
14.	<i>Cassia fistula</i> L.	Caesalpiniaceae	02179	Kakke mara	Tender leaves and stem bark	Tender leaves and stem bark mixed with equal quantities of <i>Thespesia populnea</i> bark along with garlic, pepper and lemon juice taken internally for about 6 intermittent days against stomach problems.
15.	<i>Catunaregam spinosa</i> (Thunb.) Tirveng.	Rubiaceae	02216	Kaare gida	Leaves	25 ml of tender leaf juice taken internally twice a day for 1 day against loose motion.
16.	<i>Celastrus paniculatus</i> Willd.	Celastraceae	02232	Mukarthi balli	Seeds	15 g of ground seeds mixed with 1 cup of milk taken internally empty stomach as memory tonic.
17.	<i>Centella asiatica</i> (L.) Urban	Apiaceae	0352	Ondelaga	Whole plant	10 g of powdered plant mixed with 1 teaspoon honey taken internally empty stomach to improve memory power.
18.	<i>Chloroxylon swietenia</i> DC.	Rutaceae	02213	Masivala	Leaves	Paste of crushed leaves is effective as fish stupefying agent.
19.	<i>Cocculus hirsutus</i> (L.) W. Theob.	Menispermaceae	02222	Dagadiambigae	Leaves	1 tablespoon of leaf juice is taken internally empty stomach once a day for 1-2 days against loose motion and also 2 tablespoon of concentrated juice taken internally twice a day for 5 days against leucorrhea.
20.	<i>Decalepis hamiltonii</i> Wight & Arn.	Periplocaceae	02210	Magadi beru	Root	Juice prepared from the root is used against gastric problems and ulcer. 1 ltr. water + 250 g root reduced to 250 ml. 5 ml from that made into 1 glass taken for 41 days.
21.	<i>Diplocyclos palmatus</i> (L.) Jeffrey	Cucurbitaceae	0357	Malingana balli	Whole plant	2 teaspoon of plant extract is taken internally twice a day for 10-15 days against rheumatism.

Sl. No	Botanical Name	Family	Voucher number	Local Name (Kannada)	Part Used	Uses
22.	<i>Evolvulus alsinoides</i> (L.) L.				02195	Vishnukranti Leaves 5 g of leaf paste mixed with goat milk is taken internally twice a day for 5 days against leucorrhoea.
23.	<i>Gymnema sylvestre</i> (Retz.) R.Br. ex Roem. & Schult.	Asclepiadaceae	02197	Madhunasinini	Leaves	3 leaves chewed and taken internally once a day against diabetes. 5 ml of leaf juice dropped into the eyes of cow for 2-3 days against eye problems.
24.	<i>Helicteres isora</i> L.	Sterculiaceae	02215	Kavargi	Fruits	It is generally believed that the fruits tied to the cradle will protect the child.
25.	<i>Hemidesmus indicus</i> (L.) R. Br.	Periplocaceae	02203	Sogadaberu	Root	10 ml of root decoction is taken internally twice a day for 10 days for blood purification. Herbal tea prepared using root is used against obesity.
26.	<i>Hibiscus rosa-sinensis</i> L.	Malvaceae	0361	Dasavala	Whole plant	10 g of whole plant paste mixed with 1 glass porridge water once a day for 5 days is taken internally against bleeding.
27.	<i>Ichnocarpus frutescens</i> (L.) R. Br.	Apocynaceae	0353	Gowriballi	Root	Paste prepared from the charred root applied against rat bites.
28.	<i>Ipomoea staphylina</i> Roem. & Schult.	Convolvulaceae	02225	Ugine balli	Plant exudate	Plant exudate is applied externally over cracks on the heels.
29.	<i>Jatropha curcas</i> L. Roem. & Schult.	Euphorbiaceae	0358	Doddaharalu	Plant exudate	Plant exudate mixed with butter boiled in mud pot is applied to get quick relief from burning
30.	<i>Lantana camara</i> L.	Verbenaceae	0368	Chaduranga	Leaves	Leaf juice applied externally over wounds.
31.	<i>Leucas indica</i> (L.) R. Br. ex Vatke	Lamiaceae	0360	Thumbabedha	Leaves	Leaf paste mixed with CaCo ₃ is applied externally twice a day for a week against tonsillitis.
32.	<i>Maerua oblongifolia</i> (Forssk.) A. Rich.	Capparaceae	02184	Arada balli	Leaves	A handful of crushed leaves tied in cloth is applied externally against rheumatism
33.	<i>Mucuna pruriens</i> (L.) DC.	Fabaceae	02212	Turachi-gida	Seeds	2-4 roasted seeds of the plant is taken internally as a sexual stimulant for about 15 days

34.	<i>Naringi crenulata</i> (Roxb.) Nicols.	Rutaceae	02238	Nayi belada mara	Leaves	Leaf paste applied externally for injury from animals.
35.	<i>Pergularia daemia</i> (Forssk.) Chiov.	Asclepiadaceae	02235	Halu kutlikada gida	Leaves	Leaf paste applied externally over swellings twice a day
36.	<i>Plumbago zeylanica</i> L.	Plumbaginaceae	02223	Chitramoola	Root tuber	10 g of root tuber paste is given internally for abortion once a day for 5 days
37.	<i>Premna tomentosa</i> (Lam.) Willd.	Verbenaceae	02237	Eegi mara	Stem bark	Paste prepared from stem bark is applied externally over swellings.
38.	<i>Securinega virosa</i> (Willd.) Baill.	Euphorbiaceae	0359	Bilesuli	Leaves	10 ml of plant juice mixed with 1 glass of milk is taken internally twice a day for 1 week against leucorrhea.
39.	<i>Sida acuta</i> Burm. f.	Malvaceae	0362	Bheemanakaddi, Bala	Root	Root paste is used externally against joint pains.
40.	<i>Strychnos potatorum</i> L.f.	Loganiaceae	02206	Chilladha mara	Seeds	Seeds put in earthenware pot containing water purify the water
41.	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	02235	Taare mara	Fruits	5 g powder of the fruits along with 1 tablespoon of honey is taken internally thrice a day for 3 days against fever and cold.
42.	<i>Tylophora indica</i> (Burm.f.) Merr.	Asclepiadaceae	02233	Adumuttadagida	Whole plant	Paste of the plant is applied externally against skin diseases for about 1 week.
43.	<i>Wrightia tinctoria</i> (Roxb.) R. Br.	Apocynaceae	02132	Aalae mara	Latex and Leaves	Latex of the plant is used against toothache and the dried leaves are used for mouth cleaning (mouth wash)
44.	<i>Ziziphus mauritiana</i> Lam.	Rhamnaceae	0366	Badara	Bark and Leaves	5 g each of bark and leaves paste is taken internally twice a day for 5 days against bleeding.
45.	<i>Ziziphus oenoplia</i> (L.) Mill.	Rhamnaceae	0367	Soorimullu	Root	50 ml of root juice is taken internally twice a day for 1 month against epilepsy.

During the survey, a local guide belonging to Nayaka community, residing near the Savandurga forest accompanied us. He has shown and explained about 45 plants used by the community and these plants are enumerated in this paper.

Plants have been used by the Nayaka community as medicines since ages to treat a number of ailments and diseases. However, due to lack of proper documentation, the knowledge is getting lost. This is an effort to focus attention on the documentation and preservation of such knowledge. This is especially important because last couple of decades have, brought the plant-based medicines back into focus of research as well as development of value added products [1].

2. Methodology

Information is primarily collected based on a botanical exploration conducted to the area. An elderly person of the community, namely Muthayyan, showed and explained the medicinal uses of the plants along with the mode of preparation. Each plant is botanically identified from the spot itself and representative samples of each plant are collected as voucher specimen. The voucher specimens are deposited in the Herbarium of CMPR, Kottakkal.

All the species are presented in the Table in alphabetical order along with author citation [2-4], other details of the plant, and uses.

3. Discussion

The data collected represents the information from a particular community augmented with innovations from their own experiences. Further survey of other communities in the adjoining area can also be undertaken to analyze the convergence and divergence happened during the dissemination of knowledge on local health tradition. The information collected can be scientifically validated and the leads can be followed up for drug development. The availability and distribution of individual plant species have to be scrutinized carefully for its future sustainable utilization and conservation. Documentation itself is recognition to the traditional knowledge holders.

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