

Medicinal Plants used by the Kaadar tribes of Sholayar forest Thrissur district, Kerala

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The paper enumerates the traditional uses of some plants used by the Kaadar tribes of Sholayar forest, Thrissur district, Kerala. The paper reports the traditional medicinal uses of 41 plants belonging to 27 families. The paper also has taken into account the perception of the local people about the effectiveness of the plants for specific diseases for which they are prescribed.

Key words: Tribal Medicine, Kaadar tribes, Sholayar Forest, Kerala, Ethnomedicine

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The documentation of ethnic uses of plant species of Kerala, western Ghats was initiated as early as 17th century¹ followed by subsequent ethnic studies conducted by several ethnobotanists²⁻⁴. Tribals belong to the minor community are socially, economically and literally the least advanced but they harbour a lot of knowledge on medicinal plants. The vanishing forest has a cascading effect on the tribal population that dwindles rapidly and along with this the knowledge they hold also vanishes. There are about 35 tribal communities in Kerala such as Adiyar, Kaadar, Muduvan, Paniyar, Malapandaram, Chola Naikkar, Kattu Naikkar, Kaani, Kurumba, etc. Kaadar is the major tribal community living in the Sholayar reserve forest in Thrissur district. The forest plays a significant role in the life and economy of the Kaadar. They depend mostly upon the forest flora and fauna for their livelihood. This community collects and utilizes many plants for food, fibre, fuel and medicines. In the present communication, the information gathered from an old tribal man about the medicinal uses of 41 plants has been presented.

Study area

The study area is located at 10°19.01'N latitude and 076°44.12'E longitude along the western Ghats, Thrissur district of Kerala (Fig. 1) which comes under Sholayar Range of Vazhachal Forest Division, around 50 km away from Athirapilly and Vazhachal water

falls. The forest type of this area is semi-evergreen to evergreen and is well protected and restricted. Some taxonomists have studied the flowering plants of Thrissur district and reported 1225 species of angiosperms⁵⁻⁶. The area is almost remote with only two bus services connecting Thrissur to Pollachi. Mainly three tribal communities inhabit this area. Among them, Kaadar is the major community.

Methodology

The study was conducted based on the forest exploration trip. The information was gathered primarily from Mr Raman, an 85-year-old person of the Kaadar tribe who is regarded as a master of tribal medicine by other tribal people. He explained the medicinal uses, local names, mode of preparation and other relevant matters on various plants. Such plants having medicinal uses were collected, tagged and entered in field data book with important botanical notes for herbarium specimens. All such plants were taxonomically analyzed on the spot itself. The specimens are deposited in the herbarium of Centre for Medicinal Plants Research (CMPR), Kottakkal. Medicinally important parts of some plants were collected and pickled in Formalin Acetic Acid (FAA) solution for further reference.

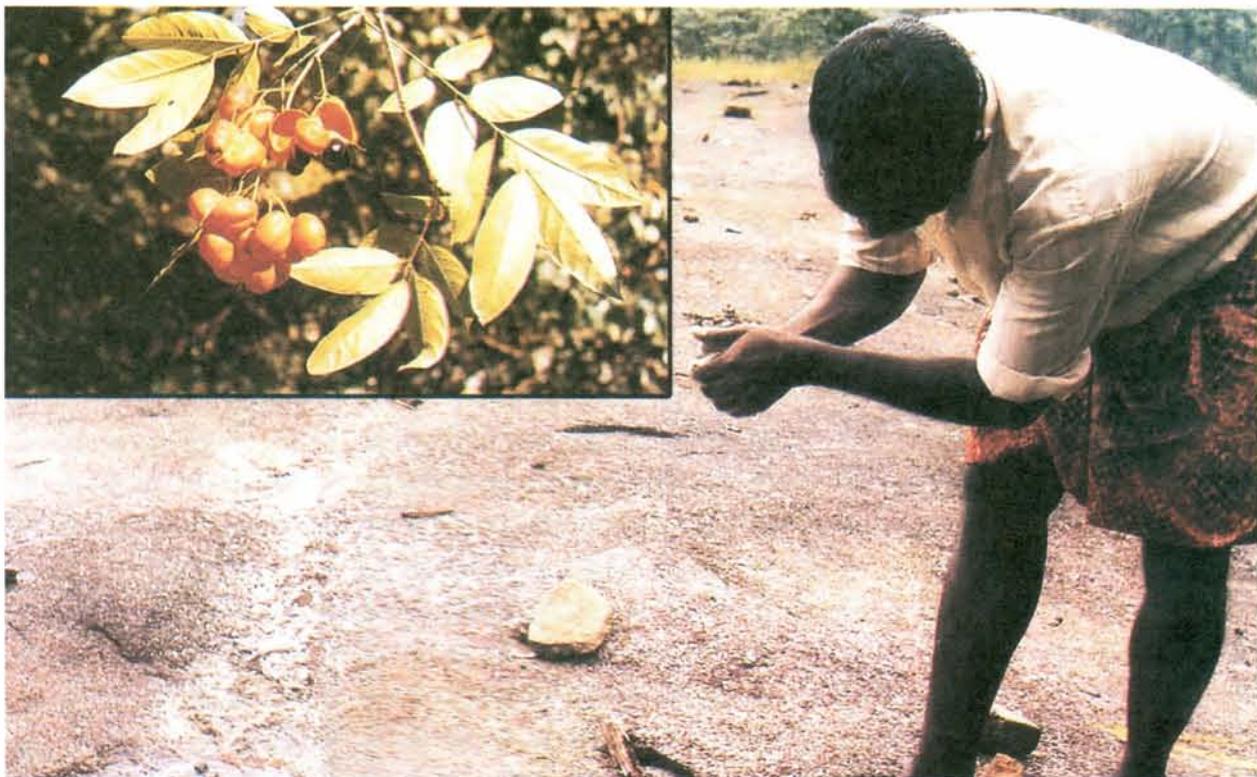
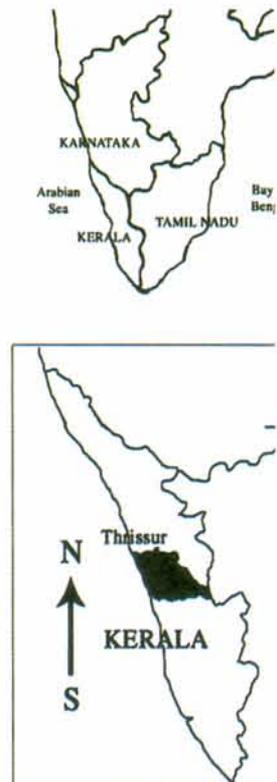
Results and Discussion

During the botanical survey of the Sholayar forest, a total of 101 species were collected. Among them 41 species are commonly used by the tribal community

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Map of Thirissur district showing the study area (Sholayar)



A Kaadar tribal man showing the use of bark juice of *Harpullia arborea* (Blanco) Radlk. [Family: Sapindaceae] "Puzhukkolli" to avoid leech bite [Inset: Fruits of *Harpullia arborea*]

Table 1—Ethnomedicinal uses and other details of the plants

| Sl. No. | Botanical name | Family | Local name | Parts used | Uses |
|---------|--|------------------|---------------------------|-----------------------|---|
| 1. | <i>Abrus precatorius</i> Linn. | Fabaceae | Kunni | Leaf | The fresh leaves are applied over the swellings with warmed coconut oil for pain. |
| 2. | <i>Adenia hondala</i> Wilde | Passifloraceae | Palmuthukku | Tuber | Tuber is used as body stimulant and for lactation. |
| 3. | <i>Ageratina adenophora</i> King & Robins. | Asteraceae | Venappacha | Leaf & stem | Crushed tender leaves and stem are applied for cuts, body pain and allergy caused by <i>Dendrocnide sinuate</i> . |
| 4. | <i>Alstonia venenata</i> R.Br. | Apocynaceae | Analivegham | Bark | Tablets made from the paste of stem bark are taken with cow's urine for the treatment of snakebite. For better results against highly poisonous snakes, the above preparation in combination with <i>Aristolochia tagala</i> Cham. (<i>Karalagam</i> - whole plant), <i>Peucedanum anamalayensis</i> , <i>Thottea siliquosa</i> , etc. are used. The stem bark paste from each plant has to be stored as tablets separately. Mixing of tablets with cow's urine is done only at the time of usage. |
| 5. | <i>Angiopteris evecta</i> Hoffm. | Angiopteridaceae | Kidang | Persisting leaf trace | Paste made from the persisting leaf trace on the stem is used against knee and elbow joint pain. |
| 6. | <i>Arisaema tortuosum</i> Schott. | Araceae | Nagathaali | Corm | Flour made from the dried corm is taken internally against worms and diarrhoea. |
| 7. | <i>Biophytum reinwardtii</i> Klotzch | Oxalidaceae | Mukkutti | Whole plant | Paste prepared from whole plant is used for dysentery. |
| 8. | <i>Bridelia scandens</i> Willd. | Euphorbiaceae | Kottakam, Venga | Stem bark & Leaf | Dried stem bark and leaves mixed with turmeric and coconut oil are used for wounds. Root paste in rice bran water is applied to remove wound scars. |
| 9. | <i>Bulbophyllum neilgherrense</i> Wight | Orchidaceae | Cherumaravazha | Whole plant | Crushed plant is taken internally for scabies. |
| 10. | <i>Centella asiatica</i> Urban | Apiaceae | Kudavan | Whole plant | Juice extracted from the plant is used for dysentery especially in children. |
| 11. | <i>Clausena anisata</i> Hook.f. ex Benth. | Rutaceae | Kattuveppu | Leaf | Leaves boiled in water are used as a mosquito repellent. |
| 12. | <i>Coscinium fenestratum</i> Colebr. | Menispermaceae | Manjavally, Maramanjil | Mature stem | Mature stem cuttings boiled in water are taken internally against jaundice and joint pain. |
| 13. | <i>Curcuma pseudomontana</i> Grah. | Zingiberaceae | Manjakoova | Rhizome | Juice prepared from the rhizome is used against stomachache. |
| 14. | <i>Cyclea peltata</i> Hook.f. & Thoms. | Menispermaceae | Karinthaali | Tuber | Crushed tubers are taken internally for stomach pain and bleeding. |
| 15. | <i>Dioscorea bulbifera</i> Linn. | Dioscoriaceae | Kattukachil | Bulbils | Paste prepared from the bulbils is used for bee stings. |
| 16. | <i>Dracaena terniflora</i> Roxb. | Agavaceae | Manjakkantham | Root & fruit | Roots boiled with rice are taken internally for jaundice. Fruits boiled in coconut oil are used against headache. |
| 17. | <i>Drynaria quercifolia</i> Smith | Polypodiaceae | Oolayali | Whole plant | Plant juice is used for the treatment of vomiting. |
| 18. | <i>Entada rheedei</i> Spreng. | Fabaceae | Makkum kaya / Kakkum kaya | Seed | Juice extracted from the seeds is used for dysentery especially for children. |
| 19. | <i>Eupatorium triplinervium</i> Vahl. | Asteraceae | Ayyampacha | Leaf | Crushed tender leaves are applied on cuts. |
| 20. | <i>Ganoderma lucidum</i> Karst | Polyporaceae | Marakkoon | Plant body | Fruiting body crushed over rock surface is applied for headache. |

Table I—Ethnomedicinal uses and other details of the plants—Contd

| Sl. No. | Botanical name | Family | Local name | Parts used | Uses |
|---------|--|------------------|------------------------|-------------------------|--|
| 21. | <i>Harpullia arborea</i> Radlk. | Sapindaceae | Puzhukkolli | Stem bark | Powder of stem bark mixed in water is applied to prevent leech. |
| 22. | <i>Hedychium flavescens</i> Carey ex Rosc. | Zingiberaceae | Aanachukku | Rhizome & Leaf | Crushed rhizome and leaves boiled in water are taken internally against diarrhoea. |
| 23. | <i>Hydrocotyle javanica</i> Thunb. | Apiaceae | Kodavan | Whole plant | Juice extracted from the whole plant is taken internally for loose motion especially in children. |
| 24. | <i>Leea indica</i> Merr. | Leeaceae | Njezhu | Stem bark | Mature stem bark is used for treating wounds. |
| 25. | <i>Mimosa pudica</i> Linn. | Mimosaceae | Thottalvaadi | Whole plant | Whole plant crushed along with <i>Phyllanthus amarus</i> and roasted with the duck egg is taken internally against jaundice. |
| 26. | <i>Naravelia zeylanica</i> DC. | Ranunculaceae | Vathakkodi | Whole plant | Crushed whole plant is inhaled for quick relief from cough and cold. |
| 27. | <i>Nervilia aragoana</i> Gaud. | Orchidaceae | Kaamala | Whole plant | Whole plant paste is used against menstrual problems. |
| 28. | <i>Ochlandra scriptoria</i> Fischer | Poaceae | Eetta | Sheathing scales | Dried sheathing scale on the stem bark is used for wounds. |
| 29. | <i>Peucedanum anamallayense</i> Cl. | Apiaceae | Padamchurukki | Whole plant | Whole plant paste along with cow's urine is effective against snakebite. |
| 30. | <i>Phyllanthus amarus</i> Schum. & Thonn. | Euphorbiaceae | Kizharnelli | Whole plant | Whole plant crushed in milk is used for jaundice |
| 31. | <i>Pittosporum tetraspermum</i> Wight & Arn. | Pittosporaceae | Analivegam | Stem bark | Paste made from stem bark is dried as tablets. Tablets are taken internally against snakebite after mixing with cow's urine. For better results against highly poisonous snakes either the above plant alone or in combination with <i>Aristolochia tagala</i> (whole plant), <i>Peucedanum anamalayensis</i> , <i>Thottea siliquosa</i> , etc. are used. Stem bark paste from each plant is stored as tablets separately. Mixing of tablets with cow's urine is done only at the time of usage. |
| 32. | <i>Pterocarpus marsupium</i> Roxb. | Fabaceae | Venga | Heart wood, bark & pulp | Pulp obtained from the bark is used against toothache. The bark and heart wood after boiling in water is used for bathing to remove body pain. |
| 33. | <i>Rhaphidophora pertusa</i> Schott | Araceae | Annarakkannan vazhakka | Stem | Stem boiled in coconut oil is applied for earache. |
| 34. | <i>Rotula aquatica</i> Lour. | Boraginaceae | Kallurvanchi | Root | Root juice is used for all types of urinary problems. |
| 35. | <i>Scoparia dulcis</i> Linn. | Scrophulariaceae | Kallurukki | Whole plant | Juice from the whole plant is used against kidney stone. |
| 36. | <i>Solanum americanum</i> Mill. | Solanaceae | Chakkutti | Fruit | Mature fruits are taken internally for urinary burning sensation. |
| 37. | <i>Solanum viarum</i> Dunal | Solanaceae | Kattuvazhuthana | Fruits | Roasted fruits made into paste are applied for toothache. |
| 38. | <i>Spilanthes ciliata</i> H.B. & K. | Asteraceae | Palluvethanchedi | Flower | Flowers are used for toothache. |
| 39. | <i>Stephania japonica</i> Miers | Menispermaceae | Karinthaali | Tuber | Crushed tubers are taken internally for scabies and sore. |
| 40. | <i>Wrightia tinctoria</i> R.Br. | Apocynaceae | Ayyappala | Leaves | Crushed leaves dipped in coconut oil exposed to sunlight for three days are applied for dandruff. |

of that area for their primary healthcare (Fig. 2). These species are arranged in the tabular form starting from family, botanical name, local (Malayalam) name, parts used and uses (Table 1).

The data collected represents the information from the particular group of tribals inhabiting the Sholayar forest areas of Thrissur district. This area consists of other groups of tribals also and the information can be extended for further studies. The botanical identification of the plant has been done from the site and each information is tagged with the herbarium specimen of the plant.

The data collected can be possibly used as the potential source for making herbal or modern medicines against some diseases and can be treated as a document for preserving the ethnomedical knowledge for posterity. This data is especially important considering the problems related to intellectual property rights and biopiracy.

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