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Ethnobotany of the Valaiyans of Karandamalai, Dindigul District, Tamil Nadu, India

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Abstract

An ethnobotanical survey was carried out between January 2007 and January 2008 in Karandamalai, Southern Eastern Ghats of Tamil Nadu, a village inhabited by Valaiyans. The main objective of the present study was to bring to light the species of wild plants that are used for the treatment of various ailments by the Valaiyans. All told, some 63 plant species are enumerated in the present account.

Key words: Karandamalai, Valaiyans, Ethnobotanical survey, Tamil Nadu

Introduction

Plants–the basis for life on earth– have been widely used as a source of medicine by man since ancient times. Most of the people depending on traditional medicine live in developing countries and they rely mainly on traditional herbal medicine to meet their primary healthcare needs. The Indian region is very rich in ethnobotanical heritage (Jain, 1991) due to its rich cultural diversity. Over 16,000 species of higher plants occur in India, of which approximately 9,000 are known to be economically useful. Of these, 7500 are used for healthcare by various ethnic communities in India (Arora, 1997).

Tamil Nadu, known as the state of Madras up to the year 1969, is located in the southern extremity of Peninsular India. It has 30 districts and includes 37 tribal communities, among these tribals, 'Valaya' or 'Valaiyans,' are one of the oldest aboriginal groups inhabiting the hill tracks of Southern Tamil Nadu.

Valaiyans are skilled hunters and forest product gatherers. Their name is believed to be derived from the word 'valai' (or net), since this implement is constantly employed by them in the capturing of jungle game (Thurston & Rangachari, 1909).

Material and Methods

Karndamalai is situated 43 km from the District of Madurai. It is adjoined by Ariyalur hills in the west and towards the northwest and north east it is surrounded by the Sirumalai and Perumalai hills, respectively (Kottaimuthu, 2007). It lies between 10^0 15' to 10^0 21' north latitude and 78^0 9' to 78^0 15' east longitude. The altitude from foot hill to the highest Jandamedu ranges from 180 to 916 M. Forest

types range from tropical thorn forests to mixed deciduous forests and moist deciduous riparian forests (Champion and Seth, 2005).

Intensive interviews were carried out in the field with the Valaiyans, according to methodology suggested by Schultes (1960 & 1962) and Jain (1963). The gathered data was cross verified by repeated queries with different local herbalists in different seasons in order to authenticate the information (Jain, 1989). The collected plants were identified taxonomically with the help of various floras (Gamble & Fischer, 1997; Matthew, 1991). Their identification was later confirmed by matching specimens with previously authenticated specimens available at Botanical Survey of India, Southern Circle, Coimbatore. All collections are deposited in Ashoka Trust for Research in Ecology and the Environment (ATREE) Herbarium, Bangalore.

The enumeration follows alphabetical order of the binomials. Family name is given in uppercase in parentheses and the local name (Tamil name) is in italics within inverted commas, followed by collectors initials (RKM- R. Kottaimuthu) and collection number.

Species Enumeration

Adenia wightiana (Wall. ex Wight & Arn.) Eng. (Passifloraceae); **'***Perum kurattai' (RKM -1093)*; 10ml of filtered juice of tuber is administered to cure peptic ulcers.

Albizia odoratissima (L.f.) Benth. (Mimosaceae); *'Karu vagai' (RKM-1030)*; Bark paste is applied on wounds.

Alseodaphne semicarpifolia Nees (Lauraceae); *'Vandukadi maram' (RKM-1045)*; Leaf and bark paste is applied on the region of beetle and scorpion stings

Andrographis alata (Vahl) Nees (Acanthaceae); *'Periyanangai' (RKM-1100)*; A handful of fresh leaves is taken orally for snakebite.

Anisochilus carnosus (L.f.) Wall. ex Benth. (Lamiaceae); *'Karpooravalli' (RKM-1199)*; Leaf juice is given orally for digestion, cold and cough.

Aphanamixis polystachya (Wall.) parker (Meliaceae); '*Vella* kongu' *(RKM-1085)*; Oil extracted from the seed is used to treat skin diseases, especially eczema.

Aristolochia indica L. (Aristolochiaceae); *'Thalaisuruli' (RKM-1163)*; The juice of the root is given for poisonous bites.

Artocarpus hirsutus Lam. (Moraceae); *'Kattupala' (RKM-1097)*; Fruits used as an appetizer. Also, the powdered seed is mixed with honey and used in the treatment of asthma.

Asparagus racemosus Willd. (Asparagaceae); *'Thaneervittan kizhangu' (RKM-1070)*; The juice of the root is given as a remedy for diarrhea, and the root paste mixed with milk is given to women for inducing lactation.

Atalantia monophylla (L.) Correa (Rutaceae); *'Kattuelumichai' (RKM-1237)*; Fruit juice mixed with honey is given to cure cough.

Baccopa monnieri (L.) Pennel. (Scrophulariaceae); *'Neerbirami' (RKM-1024)*; Leaves used to cure dysentery and improve the memory power.

Caesalpinia bonduc (L.) Roxb. (Caesalpiniaceae); *'Kachaikai' (RKM-1229)*; Dried seed powder is mixed with hot milk and given for the relief of flatulence.

Cardiospermum canescens Wall. (Sapindaceae); *'Mudakathan' (RKM-1010)*; Juice prepared from 10grams of leaves with 50ml of water is taken orally on an empty stomach for a period of 2 days in a single dose to arrest dysentery.

Celastrus paniculatus Willd. (Celastraceae); *'Valuluvai' (RKM-1140)*; A decoction of the bark is given orally on an empty stomach for a period of 7 days to women for the purposes of abortion.

Centella asiatica (L.) Urban (Apiaceae); *'Vallarai' (RKM-1227)*; Whole plant is used to cure dysentery and leaves are used to improve the memory power.

Cippadessa baccifera (Roth) Miq. (Meliaceae); *'Semmanai' (RKM-1165)*; 50ml of leaf juice is taken orally to arrest dysentery.

Cissus vitiginea L. (Vitaceae); *'Nai thiratchai' (RKM-1208)*; 10ml of the filtered juice of the fruits are mixed with the juice of *Anisomeles indica* (L.) Kuntze (Lamiaceae; *'Pei thumbai')* for relief of flatulence.

Colocasia esculenta (L.) Schott. (Araceae); *'Seman kizhangu' (RKM-1034)*; Boiled root tubers are cooked and consumed for a period of 10days to cure piles

Corallocarpus epigaeus (Rottler) C. B. Clarke (Cucurbitaceae); *'Kollankovai' (RKM-1014)*; Paste of tuberous root applied on swellings and poisonous stings.

Curculigo orchioides Gaertn. (Hypoxidaceae); *'Nilapanai' (RKM-1231)*; The dried rhizome powder is mixed with honey and given to males to improve semen production.

Dioscorea hispida Denst. (Dioscoreaceae)**;** *'Viral-valli kizhangu' (RKM-1029);* Boiled tubers are taken

twice a day for 15 days to cure piles.

Dioscorea oppostifolia L. (Dioscoreaceae); *'Valli kizhangu' (RKM-1085)*; Boiled root tubers are taken orally to reduce body heat.

Diospyros montana Roxb. (Ebenaceae); *'Vakanathi' (RKM-1095)*; 15-20gram of bark is crushed with 1 cup of curd and given twice a day for 3days for dysentery.

Diplocyclos palmatus (L.) C. Jeffrey (Cucurbitaceae); *'Sivankodi' (RKM-1077)*; 50ml of leaf juice is given for 3days for fever.

Ehretia laevis Roxb. (Cordiaceae); *'Paakupattai' (RKM-1039*); Bark paste is applied as an ointment for cuts and wounds.

Endostemon viscosus (Roth) M. Ashby. (Lamiaceae); *'Senthulasi' (RKM-1099)*; Leaf juice is applied externally to repel ticks.

Erythrina suberosa Roxb. (Fabaceae)**;** *'Kattumulmurungai' (RKM-1088)*; The leaf juice is taken orally to treat cough.

Euphorbia nivulia Buch.-Ham. (Euphorbiaceae); *'Illaikalli' (RKM-1033)*; The milky latex is applied to purge pimples of the face.

Ficus dalhousiae Miq. (Moraceae) *'Kalitchi' (RKM-1120)* Bark paste is applied externally to mend cracks in the feet.

Ficus mollis Vahl. (Moraceae) *'Kalarasu' (RKM-1099) B*ark paste is applied as an ointment for cuts and wounds.

Gardenia resinifera Roth (Rubiaceae) *'Pisinotti' (RKM-1087)* The mixture of resin and sugar in hot milk is used to arrest diarrhoea.

Garuga pinnata Roxb. (Burseraceae); *'Karuvembu' (RKM-1122)*; Latex mixed with honey is given once a day for 2days for cough.

Gymnema sylvestre (Retz.) R. Br. ex Roemer & Schultes; *'Sirukurinjan' (RKM-1089)*; Two teaspoons of dried leaf powder is mixed with hot milk and given once a day for 30 days for diabetes.

Hemidesmus indicus (L.) R. Br. var. ***indicus.*** (Asclepiadaceae); *'Nanari' (RKM-1025)*; Leaf paste mixed with oil of *Azadirachta indica* A. Juss. **(**Meliaceae; **'***Vembu'* **)** is applied for eczema.

Henckelia incana (Vahl) Spreng. (Gesneriaceae); *'Kalthamarai' (RKM-1253)*; Leaf is ground in water and the juice is taken orally to treat fever.

Holorrhena pubescens (Buch.-Ham.) (Apocynaceae); *'Palai' (RKM-1059)*; 50ml of bark decoction is taken orally in empty stomach for dysentery.

Hybanthus enneaspermus (L.) F. Muell. (Violaceae); *'Orithalthamarai' (RKM-1030)*; Leaf juice mixed with honey is given to men to enhance their sexual vigor.

Hydnocarpus wightiana (Buch.-Ham.) Oken (Flacourtiaceae); *'Maravettai' (RKM-1094)*; Oil extracted from the seed is applied externally for joint pains.

Ipomoea staphylina Roemer & Schult. (Convolvulaceae); *'Onankodi' (RKM-1020)*; Decoction of leaves and bark is given to get relief from stomach disorders.

Jatropha villosa Wight (Euphorbiaceae); *'Thanakan' (RKM-1207)*; Latex used to cure mouth ulcer.

Kleinia grandiflora (DC.) N. Rani (Asteraceae); *'Muyalkathilai' (RKM-1193)*; A few drops of leaf juice is poured into the ear to treat earache.

Lantana wightiana Wall. ex Gamble (Verbenaceae); ***'****Vellaunni' (RKM-1060)*; Leaf juice is given to children before food for easy digestion.

Marsdenia brunoniana Wight & Arn. (Asclepiadaceae); *'Perunkurinjan' (RKM-1175)*; Leaves dried in shade and leaf powder is taken for diabetes.

Memecylon umbellatum Burm. f. (Melastomataceae); *'Kayambu' (RKM-1105)*; Leaves are used to depress the appetite.

Mitracarpus villosus (Sw.) DC. (Rubiaceae); *'Kayapoondu' (RKM-1170)*; Leaf paste is applied externally to treat wounds.

Momordica dioica Roxb. ex Willd. (Cucurbitaceae); *'Naripagal' (RKM-1120)*; Tuberous root is ground in hot water and 50ml of the juice is taken orally once a day on an empty stomach for 10 days to treat diabetes.

Ophiorrhiza mungos L. (Rubiaceae); *'Pambupoo' (RKM-1092)*; Root juice is given as an antidote for snakebite.

Phyllanthus amarus Schumach. & Thonn. (Phyllanthaceae); *'Kellanelli' (RKM-1101)*; The juice extracted from the whole plant is taken orally once a day for 7days to treat Jaundice. *Diet:* Avoid salt, tamarind and chilli till recovery.

Phyllanthus indofischeri Bennet (Phyllanthaceae); *'Nelli' (RKM-1147)*; A handful of tender leaves mixed with honey is given to children to arrest dysentery.

Psidium guajava L. (Myrtaceae); *'Koyya' (RKM-1044)*; Tender leaf is ground and mixed with cow milk to get relief from stomachache.

Pterospermum suberifolium Lam. (Sterculiaceae); *'Polavu' (RKM-1266)*; A handful of leaves mixed with the stem bark of *Drypetes roxburghii* (Wall.) Hurus (Putranjivaceae; *'Pilla maram'*), a few leaves of *Blepharis maderaspatensis* (L.) B. Heyne (Acanthaceae; *'Elumbu otti'*) and the yellow yolks of 2 eggs ground into a fine paste is applied on fractured bones.

Rhinacanthus nasutus (L.) Kurz (Acanthaceae); 'Nagamalli' *(RKM-1048)*; A handful of fresh leaves is taken orally for snake bite.

Sarcostemma intermedium Decne. (Asclepiadaceae); *'Kodi kalli' (RKM-1097)*; 5-6 drops of latex is applied externally in the spot of an insect bite.

Schleichera oleosa (Lour.) Oken (Sapindaceae); *'Kusam or poovan' (RKM-1139)*; Seed powder is mixed with water and given to cattle for removing worms from the stomach.

Semecarpus anacardium L. f. (Anacardiaceae); *'Serankotai' (RKM-1069)*; Fruits ground with curd is applied on bald patches of the scalp to regain hair.

Solanum erianthum D. Don (Solanaceae); *'Sundai' (RKM-1122)*; Juice of tender leaf is taken orally to arrest dysentery.

Spondias pinnata (L. f.) Kurz (Anacardiaceae); *'Puli mangai' (RKM-1090)*; *A d*ecoction of bark is given orally to treat stomach problems.

Strychnos nux-vomica L. (Loganiaceae); *'Etti' (RKM-1177)*; Leaf juice is given to livestock to eliminate worms in the stomach.

Terminalia bellerica (Gaertn.) Roxb. (Combretaceae); *'Thandri' (RKM-1130)*; The seed powder is mixed with hot water and given for stomach disorders.

Terminalia chebula Retz. (Combretaceae); *'Kadukai' (RKM-1174)*; A teaspoon of dried fruit powder

mixed with a pinch of sodium chloride is given to arrest dysentery.

Tragia involucrata L. (Euphorbiaceae); *'Senthatti' (RKM-1062)*; The juice of the root is taken orally to get relief from constipation.

Vernonia anthelmintica (L.) Willd. (Asteraceae); *'Kattuseeragam' (RKM-1015)*; The seeds are boiled with water and taken orally to prevent white discharge in women.

Wrightia tinctoria (Roxb.) R. Br. (Apocynaceae); *'Vetpalai' (RKM-1225)*; Leaf paste is applied on aching teeth to get relief from toothache.

Results

The majority of the reports presented here were found to be new when compared with the available literature (Ganesan & Kesavan 2003; Ganesan *et al*., 2007; Rajendran *et al*., 2001; Sandhya *et al*., 2006; Subramanian *et al*., 2003). This investigation revealed that the Valaiyans of Natham Hills commonly use 63 species of plants distributed in 59 genera belonging to 42 families to treat various ailments.

Discussions

The Valaiyans of Karandamalai hills are blessed with rich ethnobotanical knowledge. Unfortunately, however, this knowledge is disappearing rapidly due to modernization and an uninterested youthful generation. This calls for immediate proper documentation of the fast-eroding traditional health practices of Valaiyans in order to save their vast knowledge from being lost for ever.

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