



Medico-ethnobotany: A study on the Kattunayaka tribe of Nilgiri Hills, Tamil Nadu

S. Rajan^{*1}, M. Jayendran², M. Sethuraman²

1. Survey of Medicinal Plants & Collection Unit, Central Council for Research in Homeopathy, 112, Government Arts College Campus, Ooty - 643002. Tamil Nadu, India
2. Tribal Research Center, Tamil University, Thanjavur - 613 005, Tamil Nadu, India.

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Abstract

Objectives: To examine medico-ethnobotany of the Kattunayaka tribe of Nilgiri hills. **Materials and methods:** Field survey and personal discussion methods have been used in the collection of data. **Results and discussion:** A list of 19 flowering plants belonging to 18 genera and 13 families which are employed for remedial purposes by the Kattunayakas of Nilgiri hills, Tamil Nadu with their local names, ethnomedicinal claims and method of applications to treat common ailments are highlighted here.

Key Words: Ethnomedicine, Kattunayaka tribe, Nilgiri hills, Tamil Nadu.

1. Introduction

Udhagamandalam (Anglicized as Ooty) is believed to be a veritable emporium for ethnobiological and anthropological studies. The Nilgiri district has variegated plants propagating both exotic and native flora of substantial recuperative utility. It consists all in all six ethnic groups of anthropological interest. They are Todas, Kotas, Kurumbas, Irulas, Paniyas and Kattunayakas. The total tribal population of the Nilgiri district was 25,048 [1] of which Kattunayakas population constitutes 1400. It has been noted from the records that the aforesaid ethnic groups have

inhabited the Western Ghats from 700 BC [2] and in the Nilgiri from 1200 BC [3].

Many investigators are of the view that there should not be any more further delay in the recording of useful data concerning ethnomedicine and phytotherapeutic practices by ethnic groups lest such vital information would be lost permanently as primitive populations become more and more acculturated to modern life styles and technological changes. A great deal of attention has been devoted to medico-ethnobotanical research in folk society in recent time [4]. Studies on ethnobotany/

* Corresponding author
E-mail: srajan68@rediffmail.com

ethnobiology in special reference to folk groups are on a sharp rise in many parts of the world.

2. Ethnography

Kattunayakas live in the interior forests of Nilgiri district. They are nomadic in nature. Their distribution is confined to Guddalur taluk. Many scholars believe that the term “Kattunayaka” and “Sholanayaka” is interchangeable. They claim autochthonous of Western Ghats. Their hamlets are conventionally known as ‘Padi’. The concepts of animism and totemism are in vogue among them.

The religious practices and social customs of Kattunayakas are not different from that of Kurumbas. Eating the bison flesh is culturally accepted. They subsist on foods such as honey, fruits, and tubers besides other variety of cereals. They are good at house training the wild elephants. Kattunayakas have the custom of evacuating their hamlets in which death occur, and move to a new locality. They bury their dead near the habitation where they live and totally desert the locality. The hut in which death occurred is destroyed by them. [5]

3. Methodology

We have collected some curious ethnomedicinal facts on the plant therapies that are currently used by the Kattunayakas. The data furnished here is based on our field surveys carried out on the Kattunayaka tribal living in and around Mudumalai (Thorapalli), Chembakolli, Patavayal, Padanthoprai and other adjoining places of Gudalur taluk in the Nilgiri district.

In the enumeration, the correct name of the species is followed by its local name and family. A brief description of the plants is also arranged for easy reference. Against this background, the authors of this paper have felt it worthwhile and desirable to attempt a study on ethnobotany of Kattunayakas in the Nilgiris.

The ethnobotanical details and the medicinal applications of the plants are elucidated here. The tribal name has been abridged as “K”. The voucher specimens of all the plants have been stored in the herbarium at the Survey of medicinal Plants and Collection Unit (SMPCU), Udthagamandalam.

4. List of medicinal plants

4.1. *Ageratum conyzoides* L.

K.: Appo Chedi [Asteraceae]

An erect, highly variable herb. Leaves opposite, oblong-lanceolate, scarious, serrulate, acute. Flowers white. Fruit a achenes, sparsely scabrous.

Leaf paste is applied for cuts, wounds and sores and also to quicken healing. It is believed to be effective for treating many severe types of skin problems.

Specimen Examined: Rajan, 6732 dated 3.11.1999.

4.2. *Asparagus racemosus* Willd.

K.: Seekla [Liliaceae]

A large climbing thorny shrub. Leaves scaly, triangular, stiff-acuminate, cladode 2-6, linear. Flowers white. Fruit a globose berry.

Fresh leaves are crushed and blown over the honey comb to repel bees.

Specimen Examined: Rajan, 6486 dated 31.5.1999.

4.3. *Bidens pilosa* Linn.

K.: Kothumurukkan [Asteraceae]

An erect, stout herb upto 60cm high. Leaves opposite, 3-foliolate, terminal leaflets obovate to lanceolate, lettral ones smaller. Flowers yellow. Fruit a achenes, black.

Leaf paste is applied to burns and wounds for rapid healing.

Specimen Examined: Rajan, 6775 dated 11.1.2000.

4.4. *Bombax ceiba* Linn.

K : Mullilava [Bombacaceae]

A large deciduous tree with horizontal branches and whorled, sharply prickled. Leaves 5-7 foliolate, leaflets elliptic-lanceolate or oblong, terminal one larger and basal one smaller. Flowers red. Fruits a oblong capsule.

The root extract is given orally to treat diarrhoea. It is also used in restorative purposes.

Specimen Examined: Rajan, 6776 dated 11.1.2000.

4.5. *Catunaregam spinosa* (Thunb.) Tirvengadam

K : Pitchikai [Rubiaceae]

A shrub or small armed tree. Leaves usually clustered obovate-spathulate. Flowers white turning to yellow. Fruit a globose berry.

The crushed fruits are thrown to ponds and rivers as a fish poison.

Specimen Examined: Rajan, 6683 dated 12.10.1999.

4.6. *Centella asiatica* (L.) Urban

K : Gottala [Apiaceae]

A prostrate herb with perennial rootstock. Leaves simple, in rosettes, orbicular-reniform, petiole sheathing at base. Flowers purplish, small. Fruit a mericarps, laterally flattened.

The whole plant paste is applied to aching tooth to mitigate pain.

Specimen Examined: Rajan, 7001 dated 30.1.2000.

4.7. *Cissampelos pareira* L. var. *hirsuta* (DC.) Forman

K : Battalu [Menispermaceae]

A tomentose, climbing herb. Leaves alternate, reniform, orbicular or cordate. Flowers greenish, small. Fruit a ovoid drupe.

The root decoction is orally given to get rid of gastric discomfort.

Specimen Examined: Rajan, 6468 dated 31.5.1999.

4.8. *Corchorus trilocularis* Linn.

K : Muruthi chedi [Tiliaceae]

An erect herb or subshrub. Leaves alternate, lanceolate or elliptic, basal serrature appended or not. Flowers yellow, small. Fruit a capsule, 3 in a cluster and angular.

The hot water decoction of seed powder is given orally as a remedy for intestinal worms.

Specimen Examined: Rajan, 6777 dated 11.1.2000.

4.9. *Costus speciosus* (Koenig) Smith

K : Kattu kooga [zingiberaceae]

A tall suberect, rhizomatous herb. Leaves spiral, oblong with ligule and sheaths. Flowers reddish in terminal spikes.

Freshly collected stem juice is instilled into the ear for earache.

Specimen Examined: Rajan, 7166 dated 22.8.2000.

4.10. *Cyclea peltata* (Lam.) Hook.f. & Thomson

K.: Pavatta [Menispermaceae]

A large climbing herb. Leaves alternate, cordate. Flowers greenish. Fruit a obovoid drupe.

The freshly collected root is chewed to relieve all types of stomachache.

Specimen Examined: Rajan, 6744 dated 11.11.1999.

4.11. *Elephantopus scaber* Linn.

K : Anaimarunthu [Asteraceae]

A scapigerous strigose herb. Leaves from basal subradical, obovate to oblanceolate. Flowers purple. Fruit a achenes, 10-ribbed.

The root is kept in a piece of cloth. It is carried by Kattunayakas whenever they go to the interior forests. According to their folk belief, this root will keep the elephants away from their paths.

Specimen Examined: Rajan, 7354 dated 28.4.2001.

4.12. *Helicteres isora* Linn.

K : Kavir [Sterculiaceae]

A shrub or small tree. Leaves alternate, obovate or orbicular, serrate. Flowers yellowish-pink or crimson. Fruit a follicles, twisted, beaked.

The root decoction in hot water is orally taken to cure diarrhoea and dysentery.

Specimen Examined: Rajan, 6741 dated 4.11.1999.

4.13. *Hibiscus lobatus* (Murry) Kuntze

K : Chuvanna Appa [Malvaceae]

A woody herb or subshrub with branchlets are stellate and simple, elongate hairs. Leaves basal orbicular-ovate, upper 3-lobed, lanceolate. Flowers white. Fruit a ovoid capsule.

The leaf and root are made into a paste and mixed with gingely oil and is taken orally as a remedy for all types of menstrual disorders.

Specimen Examined: Rajan, 6778 dated 11.1.2000.

4.14. *Hibicus rosa-sinensis* Linn.

K : Chembaruthi [Malvaceae]

A shrub upto 10 feet high. Leaves palmate, ovate, abruptly pointed or acuminate, not lobed, margin toothed. Flowers crimson or rose-red. Fruit ovoid, beaked.

The stem bark paste when taken on an empty stomach is useful for abortifacient purposes.

Specimen Examined: Rajan, 6779 dated 11.1.2000.

4.15. *Murraya paniculata* (L.) Sprengel

K : Kariveppu [Rutaceae]

A deciduous, shrub or small tree with aromatic leaves. Leaves pinnate; leaflets somewhat asymmetrical, oblique, oblong-lanceolate.

Flowers small white. Fruit a globose berry, purplish-black when ripe.

The decoction of tender twigs, leaves and fruits in hot water is orally taken to stop diarrhoea.

Specimen Examined: Rajan, 6453 dated 28.5.1999.

4.16. *Piper nigrum* Linn.

K : Kurumilagu [Piperaceae]

A large perennial climbing shrub. Leaves alternate, broadly ovate, 7-nerved from base. Flowers a long spikes, greenish. Fruit a globose berry, black after drying.

The fruit of this plant and the root of Piper betel are together made into paste and mixed with the juice of *Ocimum sanctum*. This extract is orally given to both the sexes for fertility regulation. According to their popular folk belief, this treatment brings forth long-term contraception benefits.

Specimen Examined: Rajan, 6455 dated 28.5.1999.

4.17. *Rubia cordifolia* Linn.

K : Muthangi [Rubiaceae]

A climbing herb with quadrangular stem. Leaves whorled, ovate or obovate, 5-nerved from base. Flowers white. Fruit a globose drupe, dark blue when ripe, fleshy.

The root extract is given orally to correct menstrual problems.

Specimen Examined: Rajan, 6858 dated 25.11.1999.

4.18. *Stephania japonica* (Thunb.) Miers var. *japonica*

K : Batherpa [Menispermaceae]

A climbing shrub. Leaves alternate, cordate. Flowers greenish. Fruit a globose-obovoid drupe, red when ripe.

The climber are taken the leaves are to be removed and tied to the forehead as a remedy for headache.

Specimen Examined: Rajan, 6459 dated 28.5.1999.

4.19. *Thunbergia fragrans* Roxb.

K : Kakka valli [Menispermaceae]

A slender climbing herb. Leaves opposite, elliptic-ovate, 5-nerved. Flowers white. Fruit a scabrid capsule.

Root extract is orally given as a remedy for snake-bite.

Specimen Examined: Rajan, 6861 dated 26.11.1999.

5. Conclusion

Generally speaking, all primitive tribal groups rely heavily on the ambient flora for their food, shelter and medicine. The onset of western medical systems has not been able to stamp out the time-honored folk therapeutic practices

that are still popular with them. A description of 19 flowering plants with 18 medicinal and 3 magically active (non medicinal) applications by the Kattunayaka tribe living in and around Gudalur taluk of the Nilgiri district has been recorded not only to conserve their tribal heritage but also to bring out their traditional folk wisdom and beliefs concerning health care.

The therapeutically meaningful plants need to be cultivated in a systematic manner to meet Indian system-based drug industry and to validate pharmacologically the efficacy of all ethnomedical claims.

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References

1. Anonymous, (1981) *Census Report*, Government of India, New Delhi.
2. Gardner P. (1972) In: M.G. Bicchieri (Ed.) *The Palliyans. Hunters and Gatherers of Today*. Holt, Reinhart and Winston: New York, USA.
3. Hockings P. (1975) *Paikara: an Iron Age burial in South India*. Asian Perspectives 18(1): 26-50.
4. Anonymous. (1978) World health Organization *The promotion and development of traditional medicine*. Technical report series No. 622.
5. Parthasarathy J. (1995) *Nilgiri Tribes Towards Plantation Economy*. The Planters Chronicle (KVK Special) UPASI: Coonoor; 162-163.