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# Medicinal Plants of Hubbathalai Nilgiris District of Tamil Nadu

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### Abstract

India is the largest producer of medicinal plants and is rightly called the botanical garden of the world. The medicinal plants besides having natural therapeutic values against various diseases also provide high quality of food and raw materials for livelihood. Popular knowledge of plants which can be used by humans is based on thousands of years of experience and it is essential to make the complete inventory. A medicinal plant is a plant that is used with the intention of maintaining health and to be administered for a specific medical condition in modern medicine or in traditional medicine. Hubbathalai is a town in the Nilgiri district, Tamil Nadu (11°21°03" N, 76\*45′45"E). The present study encompasses the investigation 60 medicinal plants of Hubbathalai, Nilgiri district of Tamil Nadu. The active medicinal compounds from these plants are mainly used in treating major illnesses and conditions like cancer, fever, asthma, cuts and wounds, indigestion, diarrhea rheumatism, fracture, menstrual problem, headache, body pain, allergy, dysentery, cough and cold. For treating illness, plant parts like leaf, stem, bark, root, fruits and rhizomes are being used. Totally 60 plant species has been used as medicinal plants in the study area. Asteraceae family lead with 12 Species of medicinal plants followed by Lamiaceae 6 species each, Rutaceae and Solanaceae 4 species.

Key words: Decoction, Medicinal plants, Nilgiris, Plant parts , Traditional medicine

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### INTRODUCTION

India is recognized as a country that is rich in all aspects of bio diversity like ecosystem, species and genetic diversity mainly due to its tropical location, disparate physical features and climatic types(Jain, 1987). The continent has well documented traditional knowledge, long standing practice of traditional medicine and the potential for social and economic development of medicinal and aromatic plants in primary health care and industrial scale production(samyduraiet al., 2012). India has the richness of ethno medicine because the floral diversity and rich endemic taxa. Plant used in traditional medicine have stood up to the test of time and contributed many novel compounds for preventive and curative medicine to modern science. India is sitting on a gold mine of well recorded and traditionally well practiced knowledge of herbal medicine(Umadevi et al; 2013).

The Indian subcontinent is a vast repository of medicinal plants that are used in traditional medicine, which also forms a rich source of knowledge for the

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medical field (Bagachi et al., 2011). Various indigenous healing systems such as Siddha, Ayurveda, and Unani use several plant species to treat ailments. Pharmacological validation on medicinal plants is very limited and large number of plants used in tribal and folklore with enormous potential has to be validated for their therapeutic activity (Kumar et al., 2007). A group of plants, which serve as healers and health rejuvenators are known as Medicinal plants. All plants are potential sources of medicine and have been recognized in Indian literature thousands of years ago. The plant may contain the active chemical constituents in any part or parts like root, stem, leaves, bark, fruit and seed which produces a definite curing physiological response in the treatment of various ailments in human.

During last few decades there has been an increase in the study of medicinal plants and their traditional use in different parts of the world(Lev,2006.).Herbal remedies are considered the oldest form of health care known to mankind on this earth. Prior to the development of modern medicine, the traditional system of medicine that have evolved over the centuries, are still maintained as a great traditional knowledge base in herbal medicines (Mukherjee and Wahil, 2006).

This doccumentation study helps to transform the knowledge about medicinal plants for future generation.

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| Table1. Check list of the plants with medicinal uses |                                      |            |                     |                            |
|--|--------------------------------------|------------|---------------------|----------------------------|
| S.No.  | Binomial Name                        | Parts Used | Mode of Application | Uses                       |
| 1  | Argemon Mexicana                     | W          | Oils                | Diuretic                   |
| 2  | Brassica junceae Hook.               | L,Sd       | Oil, powder         | Rubefacient                |
|  | F.&Thoms                             |            |                     |                            |
| 3  | Capsella bursa-pastoris              | W          | Extract             | Diarrhoea                  |
| 4  | Portulacaoleraceae                   | L          | Paste, Juice        | Blood purifier             |
| 5  | Hibiscus rosasinensis                | L ,F1      | Decoction           | Diabetes                   |
| 6  | ToddaliaasiaticaLamk.                | W          | Paste               | Carminative                |
| 7  | Rutagraveolens                       | W          |                     | Antispasmodic              |
| 8  | Rosa damescena                       | F1, R      | Decoction           | Purifying the blood        |
| 9  | Rubusellipticus                      | Ft         |                     | Diuretic                   |
| 10   | Cassia didymobotrya                  | L          | Paste               | Anti malarial              |
| 11   | Punicagranatum                       | FT         |                     | Purifies blood             |
| 12   | Passifloraleshenaultii               | Ft         | Juice and Decoction | Diabetes                   |
| 13   | Centellaasiatica                     | W          | Paste, Juice        | Memory power Capsules      |
| 14   | A n o tislesch n a u ltia n a        | W          | Decoction           | Cuts and Wounds            |
| 15   | Coffea A rabica                      | Sd         |                     | Stimulant                  |
| 16   | Rubiacordifolia                      | R,L        |                     | Urinary stones             |
| 17   | Ageratinaadenophora                  | L          | Juice               | Antibacterial              |
| 18   | Ageratinaconyzoides                  | L,R        | Decoction           | Cuts and wounds            |
| 19   | Bidenspilosa                         | L          | Juice               | Cuts and wounds            |
| 20   | Calendula officinalis                | Flr        | Drug                | A n tih elm in th ic       |
| 21   | Chrysanthemum coronarium             | W          |                     | Gonorrhoea                 |
| 22   | Erigeron mucronatum                  | W          | Extract             | Cuts and wounds            |
| 23   | Eupatorium glandulosum               | W          |                     | Cuts and Wounds            |
| 24   | Galinsogaparviflora                  | W          | Juice               | Cuts and Wounds            |
| 25   | Siegesbeckiaorientalis               | W          | Decoction           | Cuts and wound             |
| 26   | Spilanthesacmella                    | F1, R      |                     | Toothache                  |
| 27   | Tagesteserecta                       | W          | Infusion            | R h e u m a tis m          |
| 28   | Taraxacum officin a lis              | R h        |                     | Diuretic                   |
| 29   | Jasminumgrandiflorum                 | W          |                     | Ulcer                      |
| 30   | Catharanthusroseus                   | W          | Juice               | Leukaemia                  |
| 31   | Asclepiascurassavica                 | L,R,       |                     | Purgative                  |
| 32   | Oxalis corniculata                   | W          |                     | D y s e n ter y            |
| 33   | Oxalis latifolia                     | W          |                     | Ulcer                      |
| 34   | Cestrum nocturnum                    | L,F1       |                     | Diuretic                   |
| 35   | Daturastramonium                     | Frt        |                     | N arcotic                  |
| 36   | Solanumnigrum                        | L,W        | Extract             | Diuretic                   |
| 37   | Physalisperuviana                    | Frt        |                     | Cooling effect to the body |
| 38   | Solanumpseudocapsicum                | L,Frt      |                     | Gonorrhoea                 |
| 39   | Verbascumthapsus                     | W          | Decoction           | Diuretic                   |
| 40   | Pyrostegiavenusta                    | L          | Decoction           | Diarrhoea                  |
| 41   | Justicia simplex                     | W          | Decoction           | Diuretic                   |
| 42   | Lantana camara                       | L,St       | Decoction           | Cuts and wounds            |
| 43   | Verbena bonariensis                  | W          | Decoction           | Diuretic                   |
| 44   | Leucasaspera                         | L,F1       | Juice               | Carminative                |
| 45   | M en th a p i p er i ta              | L          | Decoction           | Cough                      |
| 46   | Plectranthusambonicus                | L          | Decoction           | Carminative                |
| 47   | Ocimumtenuiflorum                    | L          | Infusion            | Cough                      |
| 48   | Bouganvilleaspectabilis              | W          |                     | Antibacterial              |
| 49   | A c h y r a n th u s b i d e n ta ta | L,R        | Pow der             | Carmitive                  |
| 50   | Basella alba                         | L          | Vegetable           | Laxative                   |
| 51   | Chenopodiumambrossoides              | W          | Decoction           | R h e u m a tis m          |
| 52   | Persia Americana                     | W          | Infusion            | H yper tension             |
| 53   | Ricinuscommunis                      | Sd,R       | Oil                 | Purgative                  |
| 54   | Euphorbia rothiana                   | W          | Latex               | Cuts and wounds            |
| 55   | Allium cepa                          | B, Fo      |                     | Diiuretic                  |
| 56   | Aloe mitriformis                     | L          | Sap                 | Laxative                   |
| 57   | Aloe vera                            | L          | Pulp, Juice         | Diuretic                   |
| 58   | Agave americana L.                   | L,R        |                     | Laxative                   |
| 59   | Canna indica L.                      | R h        |                     | Diaphoretic                |

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#### MATERIALS AND METHODS

The present study was carried out in Hubbathalai, Nilgiris district of Tamil nadu. Hubbathalai is a census town in the nilgiris district in the Indian state of tamilnadu Location- 11\*21\*03" N, 76\*45'45"E . The village hubbathalai is located in the taluk of coonoor. Nilgiri elevation/ altitude is 1768 meters above sea level. Hubbathalai is a village in coonoor block in the nilgiris district of tamilnadu state, India it is located 11 km towards south from district Headquarters Udhgamandalam 4km from coonoor.

These plants were identified with the help of the Presidency of Madras (Gamble, 1915), 'Flora of Pulney hills and the Nilgiris' (Fyson 1915) and eflora. The families of flowering plants, the genera and species are arrange in alphabetical order. The different parts of the medicinal plants such as leaves, flowers, aerial parts, seeds, fruits, bark, stem, root, rhizome, tubers were used to prepare herbal medicine by herbal healers. The herbal medicines are being prepared by different parts of the medicinal plants. The medicines are being prepared by herbal healers in various forms such as decoction, powder, paste, juice, extract, drug, capsule forms, sometimes edible fruits are eaten as raw.

#### RESULTS

Totally 60 plant species had been recorded to be used as medicinal plants in the study area . Among them, use of whole plants was of 23 species, leafy part of 17 species, leafy and seed part of one species, leafy and flower part of 4 species, Leafy and root parts of 4 species, leafy and seed part of one species, leafy and fruit part of one species, Rhizome of one species, Bulb and fruit part of one species, fruit part of one species. In 43 % of plant species entire parts of plant species, and in 32% of plant species leaf parts were used for medicinal purposes (Fig.2).

Among these medicinal plants Asteraceae family lead with 12 Species of medicinal plants followed by Solanceae 5 species each, Lamiaceae 4 species each, Rubiaceae and Liliaceae 3 species each, Cruciferae, Rutaceae, Rosaceae, Oxalidaceae, Verbenaceae, Chenopodiaceae, Euphorbiaceae each 2 Species, Papavaraceae, Portulacaceae, Malvaceae, Caesalpinaceae, Lythraceae, passifloraceae, Apiaceae, Apocynaceae, Asclepidiaceae, Oleaceae, Scrophulariaceae, Bignoniaceae, Acanthaceae, Nyctaginaceae, Amaranthaceae, Lauraceae, Agavaceae, Cannaceae, Poaceae by one species each. Among these Asteraceae had the highest number of medicinal plant species. (Figure:1).



Fig. 1. Species composition in the family



**Fig. 2.** Percentage composition of plant species based on their Medicinal purposes

People have been traditionally using medicinal plants from time immemorial for the treatment of various types of disease. Traditional medicine plays an important role in health care of India and all over the world .The originof different medical systems is due to the concerted efforts made by the early man to treat ailments in hisown environment employing folkbeliefs and traditional herbal practices. Hence an elaborate researchthrust to document information on plant based herbal treatments on different ethnic groups is in rapid increase (Longman, 1996). Several studies have reported the plants used for wound healing, fever, stomach problem, itching, skin irritations and other skin diseases in various parts of the world (Harsha et al., 2003). Similarly Xavier et al. 2014 found that leafy crude drug preparations are mostly recommended for ethnomedicine.External application are used to treat piles, skin, wound healing, migraine, body pain, head ache, asthma and hairfall. Internal application are preferred to treat fever, ulcer, stomach upset, memory power, digestive disorder, urinary infection, stomach worm, jaundice,

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cold, tooth ache, rheumatism, diabetics, throat infection and nasal application for head ache.

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