

Indigenous medicinal plants of the Kani tribes in Kanyakumari District: Ethnobotanical documentation and quantitative study

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Supplementary Data

Supplementary Table S1 List of Plants, Part used, Disease cured, Mode of application, Life Form, Preparation and Status

Botanical Name / Family Name	Family	Parts Used	Disease Cured	Mode of Application	Habit	Preparation
<i>Abrus precatorius</i> L.	Fabaceae	Seed	Swelling	External	Climbing herb	Paste
<i>Abutilon indicum</i> (L.) Sweet.	Malvaceae	Leaf, Stem bark	Venereal diseases, Over bleeding	Internal	Shrub	Paste
<i>Acacia nilotica</i> (L.) Willd., ex Del.	Mimosaceae	Stem	Dental care, Liver strength	Internal	Tree	Powder
<i>Acacia mearnsii</i> DC.	Mimosaceae	Leaves	Skin disease	External	Shrub	Paste
<i>Acacia sinuata</i> (Lour.) Merr.	Mimosaceae	Fruit	Hair fall	External	Shrub	Powder
<i>Acalypha indica</i> L.	Euphorbiaceae	Leaves	Scabies	External	Herb	Paste
<i>Achyranthes aspera</i> L.	Amaranthaceae	Leaves	Cut injuries	External	Herb	Paste
<i>Aerva lanata</i> (L.) A. Juss.	Amaranthaceae	Whole plant	Kidney stone	Internal	Herb	Decoction
<i>Alangium salviifolium</i> (L.f.) Wangerin	Alangiaceae	Stem bark	Chronic fever	Internal	Tree	Decoction
<i>Albizia amara</i> (Roxb.) Boivin	Mimosaceae	Leaf, Stem bark	Skin diseases	External/Internal	Tree	Paste
<i>Aloe vera</i> (L.) Burm.f.	Asphodelaceae	Leaf	Stomach pain, Blister in eye	External/Internal	Herb	Juice
<i>Anacardium occidentale</i> L.	Anacardiaceae	Latex	Foot crake	External	Tree	Latex
<i>Andrographis paniculata</i> (Burm. f.) Wall. ex Nees.	Acanthaceae	Whole plant	Dengue fever	Internal	Herb	Decoction
<i>Anthocephalus cadamba</i> Miq.	Rubiaceae	Flowers	Abortifacient	Internal	Tree	Decoction
<i>Argemone mexicana</i> L.	Papaveraceae	Whole plant	Jaundice	Internal	Herb	Juice
<i>Asclepias curussavica</i> L.	Asclepiadaceae	Leaf, Latex	Asthma, Scorpion string	External	Shrub	Latex, Powder
<i>Atalantia monophylla</i> (L.) Correa	Rutaceae	Leaf, Fruit	Cold, Poisonous bite	Internal	Tree	Decoction
<i>Azadirachta indica</i> A. Juss.	Meliaceae	Stem bark, Leaf	Scabies	External/Internal	Tree	Paste
<i>Bauhinia purpurea</i> Linn.	Caesalpiniaceae	Flowers	Hair growth	External	Tree	Juice
<i>Begonia malabarica</i> Lam.	Begoniaceae	Leaf	Skin diseases	External	Herb	Paste

<i>Biophytum sensitivum</i> (L.) DC.	Oxalidaceae	Leaf	Venereal Diseases	Internal	Herb	Paste
<i>Brassica juncea</i> (L.) Czern. & Coss,	Brassicaceae	Seed	Cough	Internal	Herb	Decoction
<i>Butea monosperma</i> (Lam.) Taub.	Fabaceae	Flowers	Joint pain	External	Tree	Juice, Paste
<i>Caesalpinia bonduc</i> (L.) Roxb.	Fabaceae	Seed	Monaural disorders	Internal	Climbing Shrub	Piles
<i>Cajanus cajan</i> (L.) Millsp.	Fabaceae	Leaf	Asthma	Inhaled Smoke internal	Herb	Powder
<i>Calophyllum inophyllum</i> L.	Calophyllaceae	Seed, Leaf	Hair fall, Skin diseases	External / Internal	Tree	Paste
<i>Calotropis gigantea</i> (L.) R. Br.	Asclepiadaceae	Leaf, Latex	Scorpion String	External	Shrub	Latex, Extract
<i>Canna indica</i> L.	Cannaceae	Rhizome	Insect bite	External	Herb	Paste
<i>Capparis parviflora</i> Hook.f. & Thomas.	Capparidaceae	Leaf, Stem bark	Hip pain	External	Shrub	Paste
<i>Cardiospermum halicacabum</i> L.	Sapindaceae	Leaf	Asthma	Internal	Climbing herb	Extract, powder
<i>Carica papaya</i> L.	Caricaceae	Latex	Abortifacient	Internal	Tree	Latex
<i>Senna alata</i> (L.) Roxb.	Caesalpinaceae	Leaf	Skin diseases	External	Shrub	Paste
<i>Cassia fistula</i> L.	Caesalpinaceae	Flowers	Diabetic	Internal	Tree	Decoction
<i>Senna occidentalis</i> (L.) Link	Caesalpinaceae	Seed	Stomach Pain	Internal	Herb	Decoction
<i>Senna tora</i> (L.) Roxb.	Caesalpinaceae	Leaf	Mate Fertility	Internal	Herb	Pills
<i>Catharanthus roseus</i> (L.) G. Don,	Apocynaceae	Whole plant, Root	Skin disease, Diabetic	Internal, External	Herb	Powder, Paste
<i>Catunaregam spinosa</i> (Thunb.) Tirveng.	Rubiaceae	Fruit	Leach Bite	External	Tree	Paste
<i>Celastrus paniculatus</i> Willd.	Celastraceae	Seed	Nervous Weakness	Internal	Shrub	Powder
<i>Cipadessa baccifera</i> (Roth.) Miq.	Meliaceae	Leaf	Poison Bite	Internal	Tree	Decoction
<i>Cissus quadrangularis</i> L.	Vitaceae	Stem, Leaf	Indigestion	Internal	Climbing herb	Powder, Paste
<i>Citrullus colocynthis</i> (L.) Swingle	Cucurbitaceae	Root	Jaundice	Internal	Herb	Powder
<i>Citrus aurantifolia</i> (Christm.) Swingle	Rutaceae	Fruit	Indigestion	Internal	Shrub	Juice
<i>Cleome monophylla</i> L.	Capparidaceae	Leaf	Head Ache	External	Herb	Juice
<i>Cleome viscosa</i> L.	Capparidaceae	Leaf	Head Ache-Fever	External	Herb	Paste
<i>Clitoria ternatea</i> L.	Fabaceae	Root, Leaf	Rheumatic Swelling, Scorpion Bite	External	Climbing herb	Paste
<i>Coccinia grandis</i> (L.) J. Voigt	Cucurbitaceae	Whole plant	Diabetic, Pain	Internal	Climbing herb	Decoction
<i>Cuscuta reflexa</i> Roxb.	Convolvulaceae	Whole plant	Jaundice	Internal	Climbing herb	Juice
<i>Datura metel</i> L.	Solanaceae	Leaf	Tumour, Swelling	External	Shrub	Paste
<i>Dodonaea viscosa</i> (L.) Jacq.	Sapindaceae	Leaf	Swelling	External	Shrub	Extract
<i>Eclipta prostrata</i> (L.)	Asteraceae	Leaf	Hair Falling	External	Herb	Extract
<i>Erythrina variegata</i> L.	Fabaceae	Stem, Leaf, Flower	Menstrual Disorder	Internal	Tree	Decoction
<i>Eucalyptus tereticornis</i> Sm.	Myrtaceae	Leaf	Pain, Swelling	External	Tree	Extract
<i>Euphorbia hirta</i> L.	Euphorbiaceae	Leaf	Skin Disease	External	Herb	Paste
<i>Evolvulus alsinoides</i> (L.)	Convolvulaceae	Whole plant	Scabies	External	Herb	Paste
<i>Ficus benghalensis</i> L.	Moraceae	Bark	Diabetic, Tooth Ache	External/Internal	Tree	Decoction/Latex
<i>Ficus religiosa</i> L.	Moraceae	Latex, Fruit	Chest Pain	Internal	Tree	Powder
<i>Gloriosa superba</i> L.	Colchicaceae	Rhizome	Joint Pain	External	Climbing herb	Paste
<i>Helicteres isora</i> L.	Sterculiaceae	Fruit	Hair Growth	External	Shrub	Extract
<i>Hibiscus rosa-sinensis</i> L.	Malvaceae	Leaf, Flower	Heart Disease, Stomach Problem	Internal	Shrub	Powder
<i>Hybanthus enneaspermus</i> (L.) F.Muell.	Violaceae	Whole plant	Sexual Weakness	Internal	Herb	Powder

<i>Jasminum angustifolium</i> (L.) Willd.	Oleaceae	Flower	Milk Clotting	External	Climbing shrub	Fresh Flower
<i>Jatropha curcas</i> L.	Euphorbiaceae	Latex	Tooth Ache	External	Shrub	Latex
<i>Justicia adhatoda</i> L.	Acanthaceae	Leaf	Cough, Cold	Internal	Shrub	Juice
<i>Lantana camara</i> L.	Verbenaceae	Leaf	Wound Healing	External	Shrub	Paste
<i>Lawsonia inermis</i> L.	Lythraceae	Leaf	Skin Diseases, Foot Crake	External	Shrub	Paste
<i>Leucas aspera</i> (Willd.) Link	Lamiaceae	Leaf	Nostril Bleeding	Internal poured	Herb	Extract
<i>Mangifera indica</i> L.	Anacardiaceae	Stem Bark	Delivery pain	Internal	Tree	Decoction
<i>Melia azedarach</i> L.	Meliaceae	Leaf, Stem, Root bark	Sperm production, Skin disease	External/Internal	Tree	Extract, Paste
<i>Magnolia champaca</i> (L.) Baill. ex.Pierre	Magnoliaceae	Leaf	Eye infection	Internal	Tree	Juice
<i>Mimosa pudica</i> L.	Mimosaceae	Leaf, Root	Wound healing, Jaundice	External	Herb	Paste
<i>Mimusops elengi</i> L.	Sapotaceae	Stem bark	Improve fertility for Women	Internal	Tree	Decoction
<i>Momordica charantia</i> L.	Cucurbitaceae	Fruit	Blood pressure, Diabetic	Internal	Climbing herb	Juice, Powder
<i>Moringa oleifera</i> Lam.	Moringaceae	Gum	Piles	Internal	Tree	Powder
<i>Mucuna pruriens</i> (L.) DC.	Fabaceae	Seed	Sexual Debility	Internal	Climbing shrub	Pills
<i>Mukia madraspatana</i> (L.) M. Roem.	Cucurbitaceae	Leaf	Cold, Cough	Internal	Climbing herb	Juice
<i>Murraya koneigii</i> (L.) Spreng	Rutaceae	Leaf	Eye infection	Internal	Shrub	Paste
<i>Naravelia zeylanica</i> (L.) DC.	Ranunculaceae	Leaf	Cold and Cough	External	Shrub	Extract
<i>Nelumbium speciosum</i> (Willd.) Hook. f.	Nymphaeaceae	Flowers	Heart Diseases	Internal	Herb	Paste
<i>Nerium oleander</i> L.	Apocynaceae	Root bark, Leaf	Leprosy, Ring worm	External	Shrub	Paste
<i>Ocimum americanum</i> L.	Lamiaceae	Leaf	Cough and Cold	Internal	Herb	Extract
<i>Opuntia stricta</i> (Haw.) Haw.	Cactaceae	Stem	Ulcers	Internal	Shrub	Juice
<i>Phoenix sylvestris</i> (L.) Roxb.	Arecaceae	Stem	Aphrodisiac	Internal	Tree	Powder
<i>Phyllanthus amarus</i> Schum. & Thonn.	Euphorbiaceae	Whole plant	Liver diseases	Internal	Herb	Extract
<i>Pithecellobium dulce</i> (Roxb.) Benth.	Mimosaceae	Leaf	Leprosy, Hair fall	External	Tree	Paste
<i>Plantago ovata</i> Forssk	Plantaginaceae	Leaf	Prevent abortion	Internal	Herb	Extract
<i>Plumbago zeylanica</i> L.	Plumbaginaceae	Root	Wound healing	External	Shrub	Paste
<i>Plumeria rubra</i> L.	Apocynaceae	Latex	Diabetic Wound	External	Tree	Paste
<i>Pongamia pinnata</i> (L.) Pierre	Fabaceae	Seed	Skin diseases	External	Tree	Oil
<i>Psidium gujava</i> L.	Myrtaceae	Fruit, Leaf	Alcoholic coma, Diabetic	Internal	Tree	Juice, Decoction
<i>Pterocarpus marsupium</i> Roxb.	Fabaceae	Gum	Diabetic, Tooth ache	Internal	Tree	Extract
<i>Punica granatum</i> L.	Punicaceae	Fruit, Flower	Cardiac tonic, eczema	Internal/External	Shrub	Juice, Paste
<i>Rauvolfia serpentina</i> (L.) Benth. ex. Kurz.	Apocynaceae	Root	Blood pressure	Internal	Herb	Decoction
<i>Ricinus communis</i> L.	Euphorbiaceae	Leaf	Constipation	Internal	Shrub	Juice
<i>Rubia cordifolia</i> L.	Rubiaceae	Whole plant	Blood purifier	Internal	Climbing herb	Decoction
<i>Rubus ellipticus</i> Smith	Rosaceae	Leaf	Swelling	External	Shrub	Paste
<i>Ruta graveolens</i> L.	Rutaceae	Leaf	Joint pain	External	Shrub	Extract
<i>Semecarpus anacardium</i> L.f.	Anacardiaceae	Fruit	Chronic wound	External	Tree	Oil
<i>Sesbania grandiflora</i> (L.) Poir.	Fabaceae	Leaf	Ulcers	Internal/External	Shrub	Extract
<i>Sida cordifolia</i> L.	Malvaceae	Leaf	Fever	Internal	Herb	Decoction
<i>Solanum nigrum</i> L.	Solanaceae	Leaf	Ulcer	Internal	Herb	Extract

<i>Solanum torvum</i> Sw.	Solanaceae	Fruit	Asthma	Internal	Shrub	Powder
<i>Solanum trilobatum</i> L.	Solanaceae	Leaf	Cough and Cold	Internal	Climbing Shrub	Decoction
<i>Solanum virginianum</i> L.	Solanaceae	Seed	Gum weakness	External	Herb	Powder
<i>Sphaeranthus indicus</i> L.	Asteraceae	Whole plant	Migraine	External	Herb	Extract
<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Seed	Diabetic	Internal	Tree	Decoction
<i>Tamarindus indica</i> L.	Fabaceae	Stem bark	Piles, Insect bite	Internal/ External	Tree	Paste
<i>Tectona grandis</i> L. f.	Verbenaceae	Seed	Scabies	External	Tree	Paste
<i>Tephrosia purpuria</i> (Lam.) Pers.	Fabaceae	Root	Delivery pain	Internal	Herb	Paste, Decoction
<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Arn.	Combretaceae	Stem bark	Heart Disease	Internal	Tree	Decoction
<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	Fruit	Sexual weakness	Internal	Tree	Powder
<i>Terminalia chebula</i> Retz.	Combretaceae	Fruit	Sexual power	Internal	Tree	Powder
<i>Tinospora cordifolia</i> (Willd.) Miers.	Menispermaceae	Fruit	Jaundice	Internal	Climbing shrub	Juice
<i>Toddalia asiatica</i> (L.) Lam.	Rutaceae	Stem bark, Root bark	Stomach ache, Toothache	Internal	Shrub	Powder
<i>Tribulus terrestris</i> L.	Zygophyllaceae	Whole plant, Fruit	Fever, Head ache	External	Herb	Paste
<i>Tridax procumbens</i> L.	Asteraceae	Leaf	Cut injuries	External	Herb	Paste
<i>Vernonia cinerea</i> (L.) Less.	Asteraceae	Leaf	Wound healing	External	Herb	Paste
<i>Vitex negundo</i> L.	Verbenaceae	Leaf	Body pain	External	Shrub	Extract
<i>Withania somnifera</i> (L.) Dunal	Solanaceae	Root	Nervous weakness	Internal	Shrub	Powder
<i>Wrightia tinctoria</i> R. Br.	Apocynaceae	Latex, Leaf	Skin Diseases, Wound healing	External	Tree	Latex, extract
<i>Ziziphus jujuba</i> Mill.	Rhamnaceae	Fruit	Reduce body weight, Blood purifier	Internal	Tree	Soaked fruit

C-Common, R-Rare, CU-Cultivated, V-Vulnerable, S-Sporadic

Supplementary Table S2 The diversity of MP species and their families in the study area

Family name	No. of species	Percent (%)	S.No	Family name	No.of species	Percent (%)
Fabaceae	12	10.00	28	Begoniaceae	1	0.83
Mimosaceae	6	5.00	29	Brassicaceae	1	0.83
Solanaceae	6	5.00	30	Cactaceae	1	0.83
Apocynaceae	5	4.17	31	Canaceae	1	0.83
Caesalpiniaceae	5	4.17	32	Capparaceae	1	0.83
Euphorbiaceae	5	4.17	33	Caricaceae	1	0.83
Rutaceae	5	4.17	34	Celastraceae	1	0.83
Asteraceae	4	3.33	35	Clusiaceae	1	0.83
Cucurbitaceae	4	3.33	36	Lythraceae	1	0.83
Anacardiaceae	3	2.50	37	Magnoliaceae	1	0.83
Combretaceae	3	2.50	38	Menispermaceae	1	0.83
Malvaceae	3	2.50	39	Moringaceae	1	0.83
Meliaceae	3	2.50	40	Nymphaeaceae	1	0.83
Myrtaceae	3	2.50	41	Oleaceae	1	0.83
Rubiaceae	3	2.50	42	Oxalidaceae	1	0.83
Verbenaceae	3	2.50	43	Papaveraceae	1	0.83
Acanthaceae	2	1.67	44	Plantaginaceae	1	0.83
Amaranthaceae	2	1.67	45	Plumbaginaceae	1	0.83

Asclepiadaceae	2	1.67	46	Punicaceae	1	0.83
Cleomaceae	2	1.67	47	Ranunculaceae	1	0.83
Convolvulaceae	2	1.67	48	Rhamnaceae	1	0.83
Lamiaceae	2	1.67	49	Rosaceae	1	0.83
Liliaceae	2	1.67	50	Sapotaceae	1	0.83
Moraceae	2	1.67	51	Sterculiaceae	1	0.83
Sapindaceae	2	1.67	52	Violaceae	1	0.83
Alangiaceae	1	0.83	53	Vitaceae	1	0.83
Arecaceae	1	0.83	54	Zygophyllaceae	1	0.83

Supplementary Table S3 Informant consensus factor (ICF) for different ailment categories

Ailment	Number of taxa (Nt)	Number of use reports (Nur)	ICF
Infection and Inflammation	8	24	0.69
Venereal diseases	2	16	0.933
Hair fall	4	29	0.89
Fever	4	29	0.89
Skin diseases	11	26	0.72
Stomach pain	2	26	0.96
Dengue fever	1	12	1
Cold and Cough	6	28	0.81
Scabies	4	23	0.86
Asthma	4	22	0.85
Poison bite	6	27	0.8
Impotence	3	21	0.9
Indigestion	2	26	0.96
Jaundice	5	27	0.84
Head ache	3	27	0.92
Diabetics	9	20	0.57
Menstrual disorder	1	19	1
Joint pain	3	26	0.92
Heart disease	3	17	0.87
Over bleeding	1	15	1
Liver disease	2	13	0.91
Ulcers	2	19	0.94
Delivery pain	2	19	0.94
Eye infection	2	18	0.94

Supplementary Table S4 Fidelity Level (FL) of medicinal plants for human, livestock and both ailments

Ailment Treated	Local name of medicinal plant	Place of collection	Name of medicinal plant	Target treated			FL
				Human	Live Stock	Both	
Swelling	Kundumani	Kiliviyaru	Abrus precatorius	✓			3
Dental care, Liver strength	Karuvelam	Aralvaimozhi	Acacia nilotica			✓	3.5
Scabies, Cut injuries	Nayarivi	Kodithurai	Achyranthes aspera	✓			3.5
Cough, Asthma	Adatodai	Kiliviyaru	Adhatoda zeylanica			✓	4
Jaundice	Bramadand	Veerapuli	Argemone Mexicana	✓			3
Intestinal worms, stomach upset, loss of appetite	Veppai	Kiliviyaru, Veerapuli, Kodithurai	Azadirachta indica	✓			5
Skin diseases	Seemaigathi	Pechiparai	Cassia alata	✓			3.5
Diabetes	Aavaram	Kanikudiyaruppu	Cassia auriculata			✓	3.75
Hair Falling	Karisilanganni	Kodithurai	Eclipta prostrata	✓			3.5
Diarrhoea	Ala	Kiliviyaru, Veerapuli, Kodithurai	Ficus bengalensis			✓	4.25
Diabetics	cirukurinca	Kiliviyaru	Gymnema sylvestre	✓			3
Skin Diseases (Foot Crake)	Marudhani	Vanathiparai	Lawsonia inermis			✓	4
Cold and Cough	Mookkurinjaan	Konjur	Naravelia zeylanica	✓			4
Cough and Cold	Tulsi	Vanathiparai, Konjur, Kalikesam	Ocimum tenuiflorum	✓			5
Liver disease	Kezhanelli	Pechiparai	Phyllanthus amarus	✓			5
Improve appetite	Kurumilagu	Maramalai	Piper nigrum	✓			5
Skin diseases, (Eczema)	Pungan	Marunthuvazhalmalai	Pongamia pinnata			✓	5
Bronchitis, skin disorders	Santhanam	Olakaiaruvi	Santalum album			✓	3.5
Migraine headache	Yetti	Kodayaru	Strychnos nux-vomica	✓			4.25
Diabetic	Nagamaram	Marunthuvalmalai	Syzygium cumini			✓	4
Fever, Head ache	Nerunji Mull	Vanathiparai	Tribulus terrestris	✓			5
Body pain	KarruNochi	Konjur	Vitex negundo			✓	4
Nervous weakness	Amukura	Keeriparai	Withania somnifera	✓			4.25
Appetite stimulant, digestive aid	Ilandai	Maramalai	Zizyphus jujube	✓			5
Cut injuries	Aruvamukupoondu	Maramalai	Tridax procumbens			✓	5