

Research Article

Received on: 31-07-2016

Accepted on: 02-08-2016

Published on: 15-08-2016

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Studies on Ethnomedicinally important plants of Bariya Forest Division, Gujarat (India)

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ABSTRACT

Ethnobotanical and Ethnomedicinal surveys are important as they lead to possible drug discoveries. An ethnomedicinal survey was carried out in Bariya Forest Division to document medicinally important flora and related traditional knowledge. The data of local traditional uses were collected through personal and group interviews, and field visits with locals, and faith healers. The present study revealed 99 plant species belonging to 56 different families reported to be traditionally used by the ethnic groups receding in the peripheries of the forests of the Bariya Forest Division. The identification of the listed plants here is based on The Flora of Gujarat State. The collected and identified plants were deposited at the herbarium of the Department of Botany, Gujarat University, Ahmedabad.

Key-words: Ethnomedicinal survey, drug discovery, Bariya Forest Division, traditional knowledge, faith healers, ethnic groups, Gujarat

Cite this article as:

Munjalsinh J Parmar, Parul Joshi, Studies on Ethnomedicinally important plants of Bariya Forest Division, Gujarat (India), Asian Journal of Pharmaceutical Technology & Innovation, 04 (19); 2016, 22-27. www.asianpharmtech.com

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INTRODUCTION:

Traditional knowledge of medicinal plants plays a vital role in addressing the health care needs of indigenous people of the developing countries. [1] Being one of the oldest civilisations of the world, India has the most diverse cultural traditions associated with indigenous knowledge of medicinal plants. The ethnic/tribal population living in the remote forest areas are still dependent to a great extent on this alternative system of medicine. These herbal medicines have fewer side effects and most of the medicinal plants are easily available in nature. Traditional faith healers, midwives, animal whisperer, bone setters and faith healers (*Bhagats*) are the real carriers of this age old herbal medicine traditions. There are millions of household, women and elders who have traditional knowledge of herbal home remedies apart from the above mentioned specialised knowledge holders. [2] These ethnomedicinal researches also provide fundamental clues in the search for new drugs, foods, pesticides, natural products, genetic resources and phyto-chemicals hence, researches like this are very important. For trials and standardization of these new drugs, various agencies have been put in plan by the government of India. [3]

STUDY AREA:

Gujarat is located on the west coast of India, covering an area of 1,96,024 sq. km which is 5.96 % of the country's total area. It lies between 20° 6' to 24° 42' latitude, and 68° 10' to 74° 28' longitude. Due to the varied climatic conditions of different regions, Gujarat has very diverse vegetation. [4] The forests of Bariya Forest Division are spread over all 8 Tehsil of the Dahod district. The forests lie between parallels of latitudes 22°30' and 23°18' N and meridians of longitudes 73°48' and 74°29' E. The extreme lengths lying North South is almost 95 Km and that lying East-West is about 65 Km. Climate of this district is characterised by hot summer and general dryness, except in the monsoon season (June-September). Rainfall is very irregular and erratic. It consists of few heavy showers, interspersed with long spells of drought. Total rainfall varies widely from year to year and from place to place.

METHODOLOGY:

Frequent field excursions were conducted to various locations within the study area where the tribal inhabitants were found practicing the traditional medicines. Community leaders, elderly persons (men and women) of the villages and local faith healers (*Bhagat*) are interviewed through meeting while collecting information. To collect large amount of information, numerous field visits were done with local traditional healers for past 4 years. The collected herbs were identified up to species level and were submitted to the Department of Botany, University School of Sciences, Gujarat University. A number of floras were used for the identification of the plants reported during study. [6-8]

The data presented in here includes the scientific name of plant species, common local names, plant parts used and names of diseases or disorders. The data are presented in alphabetical order (Table: 1).

RESULT:

The present study revealed fascinating facts which provide great possibilities of further studies to recognize and develop some new drugs out of these plant species to treat different ailments. The survey also shows that the traditional knowledge of medicinal plants is not evenly spread even within the community. Elders of the ethnic groups, faith healers and midwives are the living repositories of traditional knowledge. Thus, the knowledge is less spread yet in safe hands.

Table 1: List of Ethnomedicinally important plants of Bariya Forest Division, Gujarat (India)

Sr. No.	Botanical name	Local name	Family	Habit	Part	Uses as Medicine
1	<i>Abrus precatorius</i> L	Chanothi	Fabaceae	Climber	Lf	Acidity, Mouth blisters
2	<i>Acacia catechu</i> Willd	Khair	Mimosaceae	Tree	Lf	Stop bleeding, Wound healing
3	<i>Acacia leucophloea</i> (Roxb) Willd	Rinjhan	Mimosaceae	Tree	Rt	Dysentery, Fever, Gas trouble
4	<i>Acacia nilotica</i> (L) Del	Bawal	Mimosaceae	Tree	B	Dysentery
5	<i>Acanthospermum hispidum</i> DC	Akhro	Asteraceae	Herb	Rt	Eczema
6	<i>Adhatoda vasica</i> (L) Nees	Ardusi	Acanthaceae	Shrub	Lf	Cold and Cough, Fever
					B	Gas trouble
7	<i>Alangium salvifolium</i> (L f) Wang	Ankol	Alangiaceae	Tree	B	As abortifacient
8	<i>Aloe barbadensis</i> Mill	Kuvarpathu	Liliaceae	Herb	Lf	Burns, Diabetes
9	<i>Amorphophallus commutatus</i> (Roxb) Bl	Jangli suran	Araceae	Herb	Rh	Fever, Gas trouble
10	<i>Annona squamosa</i> L	Sitafal	Annonaceae	Tree	Lf	Indigestion, Lice
11	<i>Anogeissus sericea</i> Brandis	Andarokh	Combretaceae	Tree	Lf	Jaundice
12	<i>Argemone mexicana</i> L	Daarudi	Papaveraceae	Herb	Sa	Conjunctivitis
13	<i>Argyreia nervosa</i> (Burm f) Boj	Avali Savli	Convolvulaceae	Climber	Lf	Abscess
14	<i>Aristolochia indica</i> L	Nagthumadi	Aristolochiaceae	Climber	Lf	Indigestion, Snakebite, Restlessness
15	<i>Asparagus racemosus</i> Willd	Satavri	Lilliaceae	Climber	Rt	Male impotency
16	<i>Azadirachta indica</i> A Juss	Limdo	Meliaceae	Tree	Lf	Dandruff, Fever
					Rt	Snakebite, Weight loss
					B	Blisters, Mouth Ulcer, Scabies
17	<i>Balanites aegyptiaca</i> (L) Del	Ingorio/Hingor	Balanitaceae	Tree	Se	Fever
18	<i>Boerhavia diffusa</i> L	Satodi	Nyctaginaceae	Herb	Wh	Fever
19	<i>Bombax ceiba</i> L	Shimlo	Bombacaceae	Tree	B	Dysentery, Stomachache, Vomiting
20	<i>Boswellia serrata</i> Roxb	Guggal	Burseraceae	Tree	B	Acidity, Indigestion
21	<i>Butea monosperma</i> (Lam) Taub	Kasuto	Fabaceae	Tree	Fl	Fracture
					B	Dysentery, Stomachache
22	<i>Caesalpinia crista</i> L	Kanchka	Caesalpiniaceae	Shrub	Se	Fever
23	<i>Calotropis procera</i> (Ait) R Br	Aakdo	Asclepiadaceae	Shrub	Lf	Acidity, Cold, Coryza, Bruises, Stomachache
					L	Scorpio bite, Eczema
24	<i>Capparis grandis</i> LF	Bodo Kanther	Capparaceae	Shrub	B	Swelling
25	<i>Careya arborea</i> Roxb	Kumbhi	Lecythidaceae	Tree	B	Dysentery
26	<i>Casearia graveolens</i> Dalz	Munji/Munjad	Flacourtiaceae	Herb	Lf	Bloodshot, Body ache, Internal injury
27	<i>Cassia absus</i> L	Savad/Chamed	Caesalpiniaceae	Herb	Se	Conjunctivitis
28	<i>Cassia auriculata</i> L	Awal	Caesalpiniaceae	Shrub	Lf	Acidity, Dislocation, Fracture, Swellings, Wound healing,
29	<i>Cassia fistula</i> L	Garmalo	Caesalpiniaceae	Tree	Ft	Dysentery
30	<i>Cassia occidentalis</i> L	Jangli puvad	Caesalpiniaceae	Herb	Rt	Jaundice
31	<i>Cissus quadrangularis</i> L	Sandhavel	Vitaceae	Climber	Wh	Fracture
32	<i>Cissus repanda</i> Vahl	Panivelo	Vitaceae	Climber	Lf	Bloodshot
					Rt	Boils

Sr. No.	Botanical name	Local name	Family	Habit	Part	Uses as Medicine
33	<i>Citrus medica</i> L	Bijoru	Rutaceae	Shrub	Ft	Stomachache, Vomiting
34	<i>Clematis hedysarifolia</i> DC	Morvel	Ranunculaceae	Climber	Rt	Dysentery, Vomiting
35	<i>Clerodendrum mutiflorum</i> Burm f O Ktze	Gulabi arani	Verbenaceae	Shrub	Lf	Wound healing
36	<i>Coccinia indica</i> W & A	Giloda no velo	Cucurbitaceae	Climber	Lf	Mouth ulcer
37	<i>Cocculus hirsutus</i> (L) Diels	Vevdi	Menispermaceae	Climber	Lf	Heatstroke
38	<i>Cucumis callosus</i> (Rottl) Cogn	Kothamdu	Cucurbitaceae	Climber	Wh	Restlessness owing to overeating
39	<i>Cuscuta reflexa</i> Roxb	Amarvel	Cuscutaceae	Climber	Wh	Fever
40	<i>Dalbergia paniculata</i> Roxb	Patradi	Fabaceae	Tree	B	Wound healing
41	<i>Delonix elata</i> (L) Gamble	Sandedo	Caesalpinaceae	Tree	B	Fracture
42	<i>Dendrocalamus strictus</i> Nees	Vans	Poaceae	Tree	B	Stop bleeding, Wound healing
43	<i>Diospyros melanoxylon</i> Roxb	Timru	Ebenaceae	Tree	Lf, Ft	Fracture, Wound healing
44	<i>Ehretia laevis</i> Roxb	Tanboliyo	Ehretiaceae	Tree	B	Stomachache
45	<i>Enicostema hyssopifolium</i> (Willd) Vadoon	Mamejavo	Gentianaceae	Herb	Se	Fever
46	<i>Eucalyptus globulus</i> Labill	Nilgiri	Myrtaceae	Tree	Lf	Gas trouble, Headache
47	<i>Euphorbia geniculata</i> Ort	Dudhiyu	Euphorbiaceae	Herb	Rt	To increase lactation
48	<i>Euphorbia nivulia</i> Buch Ham	Thor	Euphorbiaceae	Shrub	L	Abscess, Boil, Conjunctivitis
49	<i>Flacourtia indica</i> (Burm f) Merr	Gadi	Flacourtiaceae	Tree	Ft	Salivary gland infections
50	<i>Helicteres isora</i> L	Maradasing	Sterculiaceae	Shrub	Ft	Dysentery
51	<i>Hemidesmus indicus</i> (L) Schult	Dudhvel	Periplocaceae	Climber	Lf	Lactation
					Wh	Dysentery, Scorpion sting, Vomiting
					Rt	Abscess, Sunstroke
52	<i>Hibiscus ovalifolius</i> (Forsk) Vahl.	Bhindi	Malvaceae	Shrub	Rt	Snakebite
53	<i>Holarrhena antidysenterica</i> (Heyne ex Roth) Wall	Kadvai	Apocynaceae	Shrub	Se	Fever
					Rt	Scorpion bite
54	<i>Holoptelea integrifolia</i> (Roxb) Planch	Karanj	Ulmaceae	Tree	Lf	Eczema, Dandruff, Lice
55	<i>Hymenodictyon excelsum</i> Roxb	Luniyo	Rubiaceae	Tree	B	Dysentery
56	<i>Hymenodictyon excelsum</i> (Roxb) Wall	Munj Mahudo	Rubiaceae	Tree	Lf	Fracture, Wound healing
57	<i>Ipomoea sepiaria</i> Koen ex Roxb	-	Convolvulaceae	Climber	L	Boils
58	<i>Jatropha curcas</i> L	Ratanjyot	Euphorbiaceae	Shrub	Se	Mouth ulcers
59	<i>Lannea coromandelica</i> (Houtt) Herrill	Moyano	Anacardiaceae	Tree	St	Ear ache
60	<i>Launaea procumbens</i> (Roxb) Ram & Raj	Bhopatri	Asteraceae	Herb	Rt	Calculi
61	<i>Lepidagathis cristata</i> Willd	Aniyar	Acanthaceae	Herb	In	Pain killer
62	<i>Leptadenia reticulata</i> (Retz) W & A	Kadvadodi	Asclepiadaceae	Climber	Rt, B	Cough and cold
63	<i>Ludwigia octovalvis</i> (Mich) Raven	Jal jambu	Onagraceae	Herb	Lf	Fever
64	<i>Madhuca indica</i> J F Gmel	Mahuda	Sapotaceae	Tree	Lf	Scorpio bite
					Fl	Bloodshot, Body ache
65	<i>Mangifera indica</i> L	Ambo	Anacardiaceae	Tree	Sa	Scorpio bite
					Lf	Headache
66	<i>Maytenus emarginata</i> (Willd) D Hou	Kankayo	Celastraceae	Shrub	Lf	Jaundice
67	<i>Milusa tomentosa</i> (Roxb) Sinclair	Umbio	Annonaceae	Tree	Ft	Tumor in uterus
68	<i>Momordica charantia</i> L	Kareli	Cucurbitaceae	Climber	Lf	Wound healing
					Se	Contraception

Sr. No.	Botanical name	Local name	Family	Habit	Part	Uses as Medicine
69	<i>Morinda tomentosa</i> Heyne ex Roth	Aledi	Rubiaceae	Herb	Lf	Body ache, Fracture
					B	Dysentery, Mouth ulcer, Tetanus,
70	<i>Moringa concanensis</i> Nimmo	Saragavo	Moringaceae	Tree	B	Gas trouble,
71	<i>Ocimum sanctum</i> L	Tulsi	Lamiaceae	Herb	LF	Cold and Cough, Fever
72	<i>Phoenix sylvestris</i> (L) Roxb	Khajuri	Arecaceae	Tree	LF	Headache
73	<i>Physalis minima</i> L	Popati	Solanaceae	Herb	LF	Jaundice
74	<i>Plumbago zeylanica</i> L	Chitrad	Plumbaginaceae	Herb	Rt	Headache
75	<i>Pongamia pinnata</i> (L) Pierre	Kanaj	Fabaceae	Tree	Se	Blisters, Mouth ulcer, Wound hilling, Stop bleeding
76	<i>Psidium guajava</i> L	Jamphal	Myrtaceae	Tree	Ft	Wound healing
77	<i>Rhynchosia minima</i> (L) DC	Tripankhi vel	Fabaceae	Climber	Lf	Acne
					Rt	Boils
78	<i>Ricinus communis</i> L	Divel	Euphorbiaceae	Shrub	Lf	Stomachache
79	<i>Salvadora persica</i> L	Pilvo	Salvadoraceae	Tree	Lf	Bloodshot, Body pain, Swellings
80	<i>Sapindus emarginatus</i> Vahl	Aritha	Sapindaceae	Tree	Se	Gas trouble
81	<i>Solanum surattense</i> Burm f	Bhoy Ringani	Solanaceae	Herb	Se	Tooth ache
82	<i>Solanum trilobatum</i> L	Kaantali	Solanaceae	Herb	Rt	Erysipelas
83	<i>Sonchus asper</i> (L) Hill	Dholki	Asteraceae	Herb	Lf	Heal wounds
84	<i>Soyimida febrifuga</i> (Roxb) A Juss	Royano/Rohan	Meliaceae	Tree	B	Jaundice
85	<i>Syzygium cumini</i> (L) Skeels	Jambu	Myrtaceae	Tree	B	Dysentery
86	<i>Tamarindus indica</i> L	Khati Amla	Caesalpiniaceae	Tree	Se	Dysentery, Scorpio bite
87	<i>Tecomella undulata</i> (Sw) Seem	Ragat Rohido	Bignoniaceae	Tree	B	Diarrhea, Fracture, Jaundice, Menopause, Stomach infection
88	<i>Tectona grandis</i> L f	Saag	Verbenaceae	Tree	Lf	Wound healing, Stop bleeding
					B	Dysentery, Urinary tract infections
89	<i>Terminalia bellirica</i> (Gaertn) Roxb	Baheda	Combretaceae	Tree	Ft	Constipation
90	<i>Terminalia chebula</i> Retz	Harde	Combretaceae	Tree	Ft	Cough, Indigestion
91	<i>Azanza lampas</i> Dalz & Gibs	Nanedi	Malvaceae	Shrub	Rt	Stop bleeding, Wound healing
92	<i>Tinospora cordifolia</i> (Willd) Miers	Galo	Menispermaceae	Climber	Lf	Jaundice, Wound healing
93	<i>Tribulus terrestris</i> L	Gokharu	Zygophyllaceae	Herb	Rt, Se	Scorpio bite
94	<i>Tridax procumbens</i> L	Ganthiyu	Asteraceae	Herb	Lf	Calculi, Stop bleeding, Wound healing
95	<i>Typha angustata</i> Bory & Chaub	Gha Bajariyu	Typhaceae	Herb	In	Stop bleeding
96	<i>Urginea indica</i> L	Jangli Dungri	Liliaceae	Herb	Bl	Gas trouble, Restlessness
97	<i>Vitex negundo</i> L	Nagod	Verbenaceae	Shrub	Lf	Fever
98	<i>Woodfordia fruticosa</i> (L) Kurz	Phool Dhavdi	Sterculiaceae	Shrub	Fl	Acidity
99	<i>Zingiber cernuum</i> Dalz	Jangli Adu	Zingiberaceae	Herb	Rh	Join pain

B = Bark, Bl = Bulb, Fl = Flower, Ft = Fruit, In = Inflorescence, L = Latex, Lf = Leaf, Rh = Rhizome, Rt = Root, Sa = Sap, Se = Seed, St = Stem, Wh = Whole plant

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