

DIVERSITY OF ETHNOMEDICINAL PLANTS OF KOLHAPUR DISTRICT, WESTERN GHATS

¹M. N. PATIL AND ²S. B. PATIL

¹Department of Botany, Yashvanrao Chavan Mahavidyalaya, Warnanagar - 416 113

²Department of Botany, S. M. Dnyandeo Mohekar Mahavidyalaya, Kalam - 413 507

E-mail: manpatil2020@gmail.com

Date of online publication: 30th June 2021

DOI:10.5958/2455-7218.2021.00020.6

From the birth of mankind there has been a relationship between life, disease and plants. The plants have been used in almost all cultures as a source of medicine. The extensive use of herbal medicines and healthcare compensations were described in prehistoric texts. These prehistoric texts had given the importance of plants and they are the source of medicines used by man from prehistoric times for relieving suffering and curing ailments. Therefore, the present investigation was undertaken to study the ethnomedicinal plants of the Western Ghats of Kolhapur district. A total of 141 ethnomedicinal species belonging to 114 genera spread over 64 families have been documented, of which 60 species were used by traditional practitioners, vaidus and tribals as a medicine.,

Human came on the planet with empty hands and had to generate their own necessities. To satisfy the necessities using only what nature had offered around them. Thus, here was the first determination of using plants, soil, water and air to achieve the desired needs (Janaki Ammal 1954, 1956, Jain 1981). In this planet human didn't come with well equipment's and knowledge as to what was harmful and what was good. But he had achieved this by his talent and experiences (Pal and Jain, 1989 and 1998). Apparently, they must have tried to learn from animals by cohabiting with them. Ancient man was given much more interest towards green plants and initiated to scrutinize the property of plants as trial and error to obtain different beneficial properties of plants (Janaki Ammal and Prasad 1984, Joshi 1995, Sinha 1998). They were scrutinizing the property of plants repeatedly and became enriched with the knowledge of many useful and harmful plants. This enriched knowledge has been shifted from generation to generation without any documentation. Ample data on therapeutic value of plants has come from the knowledge gathered by the aborigines of the tribal mostly inhabiting forested hilly terrains (Maheswari 2000, Patil DA 2000, Sikarwar 2002, Shrivastav and Jain 2005). They depend on the forest herbs and trees for curing various types of ailments and disorders. The plant prosperity has prejudiced the life of human existence from

time immemorial. The plants were adopted to the diverse habitats of the planet by their physical and biochemical modifications, whereas humans were adapted through the generation and application of their knowledge. It is beyond uncertainty that complex link exists between culture and biological diversity (Patil and Bhaskar 2006, Puspangadan *et al.* 2016).

During the present investigation authors studied the ethnomedicinal wealth of Western Ghats, Kolhapur district. Based on the literature available, a total of 141 species of medicinal plants belonging to 114 genera of 64 families have been documented. However, in remote areas of Western Ghats different communities *viz.*, maratha, dhangar and tribal are living and they use different plants as medicine. Amongst the 141 species, 60 species were used by these communities as medicine.

MATERIALS AND METHODS

Collection and Documentation: The survey was carried out during 2013 to 2020 from the Western Ghats of Kolhapur District for collection and documentation of ethnomedicinal plants. Specimens were collected in sterile polyethylene bags and brought to the laboratory for further processing

Identification: The collected plants were identified with the help of floras viz., *Flora of Bombay Presidency* (Cook 1903-08), *Flora of Maharashtra I & II* (Almedia 1996-2009), *Flora of Kolhapur District* (Yadav and Sardesai 2002); Field guide to the pteridophytes of northern Western Ghats (Patil et al. 2017).

Life Forms: The classification of plant species based on life forms have been outlined by Raunkiaer (1934), Mishra (1968), Muller and Ellenberg (1974).

Ethnic information: The information was collected by interviewing of 200 villagers/vaidus from 20 villages in the Western Ghats of Kolhapur District through personal interaction and informal discussion.

RESULTS AND DISCUSSION

The present investigation was undertaken to study the diversity of ethnomedicinal plants from the Western Ghats of Kolhapur district. Many species are already reported and described in various flora's and botanical

reports from district Kolhapur and the adjoining areas (Yadav and Sardesai 2002, Patil et al. 2017). Based on the available literature a total of 141 species of medicinal plants belonging to 114 genera of 64 families have been documented (Maheswari 2000, Patil DA 2000; Sikarwar 2002; Patil & Bhaskar 2006, Patil et al. 2012, Puspangadan et al. 2016). These plants represent two different plant groups viz., angiosperms and pteridophytes. Among these 118 species are angiosperms and 23 species are of pteridophytes (Table 1).

Life Forms: The study of life forms reveals that studied ethnomedicinal plants were categorized into 4 major categories (Fig. 1) viz., herbs, shrubs, tree, and climbers. Amongst these maximum species were herbs (71 species) followed by trees (45 species), shrubs (16 species) and climbers (09 species).

Ethnic information on plants : Amongst these 141 medicinal plants, a total of 60 species of vascular plants spread over 22 families and 41 genera are used by traditional practitioners of Western Ghats of Kolhapur

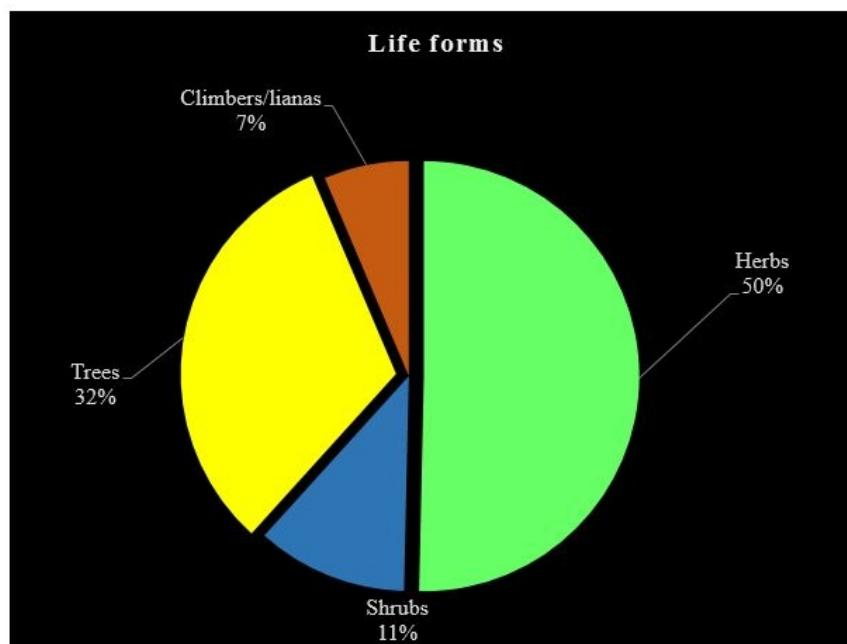


Figure 1: Life forms of ethnomedicinal plants observed in Western Ghats of Kolhapur District

Table 1: List of Ethnomedicinal Plants from the Western Ghats of Kolhapur District.

Sr. No.	Botanical name	Common name	Family	Habit
A. Angiosperms				
1.	<i>Justicia adhatoda</i> L.	Adulsa	Acanthaceae	Shrub
2.	<i>Trianthema portulacastrum</i> L.	-	Aizoaceae	Herb
3.	<i>Allium cepa</i> L.	Kanda	Alliaceae	Herb
4.	<i>Allium sativum</i> L.	Lasun	Alliaceae	Herb
5.	<i>Achyranthes aspera</i> L.	Agadha	Amaranthaceae	Herb
6.	<i>Alternanthera sessilis</i> (L.) R.Br. ex DC.	Sonkata	Amaranthaceae	Herb
7.	<i>Amaranthus hybridus</i> L.	Math	Amaranthaceae	Herb
8.	<i>Chenopodium album</i> L.	Chakvat	Amaranthaceae	Herb
9.	<i>Mangifera indica</i> L.	Amba	Anacardiaceae	Tree
10.	<i>Semecarpus anacardium</i> L. f.	Bibba	Anacardiaceae	Tree
11.	<i>Annona reticulata</i> L	Ramphal	Annonaceae	Tree
12.	<i>Annona squamosa</i> L.	Shitaphal	Annonaceae	Tree
13.	<i>Polyalthia longifolia</i> (Sonn.) Thwaites	Ashoka	Annonaceae	Tree
14.	<i>Coriandrum sativum</i> L.	Kothimber	Apiaceae	Herb
15.	<i>Daucus carota</i>	Jangli Gajar	Apiaceae	Herb
16.	<i>Nerium indicum</i> Mill.	Kaner	Apocynaceae	Shrub
17.	<i>Tabernaemontana divaricata</i> (L.) R. Br. ex Roem. & Schult.	Tagar	Apocynaceae	Shrub
18.	<i>Plumeria rubra</i> L.	Chafa	Apocynaceae	Tree
19.	<i>Colocasia esculenta</i> (L.) Schott	Aalu	Araceae	Herb
20.	<i>Gymnema sylvestre</i> (Retz.) R. Br. ex Schult.	Bedakicha pala	Asclepiadaceae	Climber
21.	<i>Asparagus racemosus</i> Willd.	Shatawari	Asparagaceae	Climber
22.	<i>Ageratum conyzoides</i> L.	Osadi	Asteraceae	Herb
23.	<i>Artemisia annua</i> L.	Davna	Asteraceae	Herb
24.	<i>Eclipta prostrata</i> (L.) L.	Bhrungraj	Asteraceae	Herb
25.	<i>Tridax procumbens</i> (L.) L.	Dagadipala	Asteraceae	Herb
26.	<i>Bombax ceiba</i> L.	Kate Sawar	Bombacaceae	Tree
27.	<i>Cordia dichotoma</i> G. Forst.	Bhokar	Boraginaceae	Tree
28.	<i>Brassica juncea</i> (L.) Czem.	Mohari	Brassicaceae	Herb
29.	<i>Brassica oleracea</i> L.	Kobi	Brassicaceae	Herb
30.	<i>Raphanus sativus</i> L.	Mula	Brassicaceae	Herb
31.	<i>Caesalpinia pulcherrima</i> (L.) Sw.	Shankasur	Caesalpiniaceae	Shrub
32.	<i>Cassia surattensis</i> Burm. f.	Motha farvad	Caesalpiniaceae	Shrub
33.	<i>Cassia fistula</i> L.	Bahava	Caesalpiniaceae	Tree
34.	<i>Saraca indica</i> L.	Sita Ashok	Caesalpiniaceae	Tree
35.	<i>Tamarindus indica</i> L.	Chinch	Caesalpiniaceae	Tree
36.	<i>Cannabis sativa</i> L.	Bhang	Cannabaceae	Herb
37.	<i>Capparis decidua</i> (Forssk.) Edgew.	Nepati	Capparaceae	Shrub
38.	<i>Casuarina equisetifolia</i> L.	Suru	Casuarinaceae	Tree
39.	<i>Cleome viscosa</i> L.	Pivali tilavan	Cleomaceae	Herb
40.	<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Arn.	Arjun	Combretaceae	Tree

41.	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Behada	Combretaceae	Tree
42.	<i>Terminalia chebula</i> Retz.	Hirda	Combretaceae	Tree
43.	<i>Ipomea mauritiana</i> Jacq.	Bhuikohala	Convolvulaceae	Climber
44.	<i>Convolvulus arvensis</i> L.	Garvell	Convolvulaceae	Herb
45.	<i>Evolvulus alsinoides</i> (L.) L.	Vishnukranth	Convolvulaceae	Herb
46.	<i>Ipomoea palmata</i> Forssk.	Baura	Convolvulaceae	Herb
47.	<i>Luffa acutangula</i> (L.) Roxb.	Dadudodaka	Cucurbitaceae	Climber
48.	<i>Luffa cylindrica</i> (L.) M. Roem.	Dodaka	Cucurbitaceae	Herb
49.	<i>Diospyros melanoxylon</i> Roxb.	Tendu, Temru	Ebenaceae	Tree
50.	<i>Euphorbia hirta</i> L.	Dodhi	Euphorbiaceae	Herb
51.	<i>Jatropha pandurifolia</i> Andrews	Ratanjyot	Euphorbiaceae	Shrub
52.	<i>Momordica charantia</i> L.	Karla	Fabaceae	Climber
53.	<i>Abrus precatorius</i> L.	Gunj	Fabaceae	Shrub
54.	<i>Glycyrrhiza glabra</i> L.	Jasthmadh	Fabaceae	Shrub
55.	<i>Curculago orchoides</i> Gaertn.	Kali musali	Hypoxidaceae	Herb
56.	<i>Mentha arvensis</i> L.	Pudina	Lamiaceae	Herb
57.	<i>Ocimum sanctum</i> L.	Tulsi	Lamiaceae	Herb
58.	<i>Tectona grandis</i> L.f.	Sagwan	Lamiaceae	Tree
59.	<i>Melilotus indica</i> (L.) All.	Methi	Leguminosae	Herb
60.	<i>Acacia arabica</i> (Lam.) Willd.	Khair	Leguminosae	Tree
61.	<i>A. nilotica</i> (L.) Willd. ex Delile	Babul	Leguminosae	Tree
62.	<i>Bauhinia variegata</i> L.	Kanchan	Leguminosae	Tree
63.	<i>Bauhinia purpurea</i> L.	Rackt Kanchan	Leguminosae	Tree
64.	<i>Bauhinia racemosa</i> Lam.	Apta	Leguminosae	Tree
65.	<i>Dalbergia sissoo</i> Roxb. ex DC.	Sisav	Leguminosae	Tree
66.	<i>Erythrina variegata</i> L	Pangara	Leguminosae	Tree
67.	<i>Lawsonia inermis</i> L.	Mehandi	Lythraceae	Shrub
68.	<i>Lagerstroemia microcarpa</i> Wight.	Bondara	Lythraceae	Tree
69.	<i>Lagerstroemia speciosa</i> (L.) Pers.	Tamhan	Lythraceae	Tree
70.	<i>Abelmoschus esculentus</i> (L.) Moench	Bhendi	Malvaceae	Herb
71.	<i>Sida rhombifolia</i> L.	Khadena	Malvaceae	Herb
72.	<i>Hibiscus rosa-sinensis</i> L.	Jasvand	Malvaceae	Shrub
73.	<i>Adansonia digitata</i> L.	Gorakh Chinch	Malvaceae	Tree
74.	<i>Azadirachta indica</i> A. Juss.	Kadulimb	Meliaceae	Tree
75.	<i>Melia azedarach</i> L.	Limbara	Meliaceae	Tree
76.	<i>Tinospora cordifolia</i> (Willd.) Hook. f. & Thomson	Gulvel	Menispermaceae	Climber
77.	<i>Ficus benghalensis</i> L.	Vad	Moraceae	Tree
78.	<i>Ficus racemosa</i> L.	Umbar	Moraceae	Tree
79.	<i>Ficus religiosa</i> L.	Pimpal	Moraceae	Tree
80.	<i>Moringa oleifera</i> Lam.	Shevga	Moraceae	Tree
81.	<i>Morus alba</i> L.	Tuti	Moraceae	Tree
82.	<i>Corymbia citriodora</i> (Hook.) K.D.Hill & L.A.S.Johnson	-	Myrtaceae	Tree
83.	<i>Psidium guajava</i> L.	Peru	Myrtaceae	Tree
84.	<i>Syzygium cumini</i> (L.) Skeels	Jambul	Myrtaceae	Tree
85.	<i>Boerhavia diffusa</i> L.	Ghetoli	Nyctaginaceae	Herb

86.	<i>Boerhavia erecta</i> L.	Pandhari ghetoli	Nyctaginaceae	Herb
87.	<i>Jasminum grandiflorum</i> L.	Chameli	Oleaceae	Climber
88.	<i>Jasminum sambac</i> (L.) Aiton	Mogra	Oleaceae	Climber
89.	<i>Oxalis corniculata</i> L.	Ambushi	Oxalidaceae	Herb
90.	<i>Argemone mexicana</i> L.	Pivala Dhotara	Papaveraceae	Herb
91.	<i>Papaver somniferum</i> L.	Khashkas	Papaveraceae	Herb
92.	<i>Butea monosperma</i> (Lam.) Taub.	Palas	Papilionaceae	Tree
93.	<i>Sesamum indicum</i> L.	Til	Pedaliaceae	Herb
94.	<i>Phyllanthus niruri</i> L.	Bhuiawala	Phyllanthaceae	Herb
95.	<i>Emblica officinalis</i> Gaertn.	Avala	Phyllanthaceae	Tree
96.	<i>Plumbago zeylanica</i> L.	Chitrak	Plumbaginaceae	Climber
97.	<i>Triticum aestivum</i> L.	Gahu	Poaceae	Herb
98.	<i>Bambusa bambos</i> (L.) Voss	Bamboo	Poaceae	Tree
99.	<i>Polygonum plebejum</i> L.	Gulani godhadi	Polygonaceae	Herb
100.	<i>Portulaca oleracea</i> L.	Ghol	Portulacaceae	Herb
101.	<i>Putranjiva roxburghii</i> Wall.	Putravanti	Putranjivaceae	Tree
102.	<i>Catunaregam spinosa</i> (Thunb.) Tirveng.	Gela	Rubiaceae	Shrub
103.	<i>Citrus limon</i> (L.) Osbeck	Limbu	Rutaceae	Shrub
104.	<i>Aegle marmelos</i> (L.) Corrêa	Bel, Bel Patrai	Rutaceae	Tree
105.	<i>Allophylus cobbe</i> (L.) Raeusch	Theepani,	Sapindaceae	Tree
106.	<i>Mimusops elengi</i> L.	Bakul	Sapotaceae	Tree
107.	<i>Datura stramonium</i> L.	Dhotara	Solanaceae	Herb
108.	<i>Lycopersicon esculentum</i> Mill.	Tomato	Solanaceae	Herb
109.	<i>Physalis minima</i> L.	Chirboti	Solanaceae	Herb
110.	<i>Solanum tuberosum</i> L.	Batata	Solanaceae	Herb
111.	<i>Withania somnifera</i> (L.) Dunal	Ashwaghandha	Solanaceae	Herb
112.	<i>Grewia asiatica</i> L.	Dhaman	Tiliaceae	Tree
113.	<i>Clerodendrum inerme</i> (L.) Gaertn.	Vanjai	Verbenaceae	Shrub
114.	<i>Lantana camara</i> L.	Ghaneri	Verbenaceae	Shrub
115.	<i>Vitex negundo</i> L.	Nirgudi	Verbenaceae	Shrub
116.	<i>Curcuma longa</i> L.	Halad	Zingiberaceae	Herb
117.	<i>Zingiber officinale</i> Roscoe	Aale	Zingiberaceae	Herb
118.	<i>Tribulus terrestris</i> L.	Sarata	Zygophyllaceae	Herb
Pteridophytes				
119.	<i>Adiantum capillus-veneris</i> L.	-	Adiantaceae	Herb
120.	<i>Adiantum caudatum</i> L.	-	Adiantaceae	Herb
121.	<i>Adiantum concinnum</i> Humb. & Bonpl. ex Willd.	-	Adiantaceae	Herb
122.	<i>Adiantum philippense</i> L.	-	Adiantaceae	Herb
123.	<i>Adiantum raddianum</i> C. Presl.	-	Adiantaceae	Herb
124.	<i>Pteridium revolutum</i> (Blume) Nakai	-	Dennstaedtiaceae	Herb
125.	<i>Tectaria coadunata</i> (Wall. ex Hook. and Grev.) C. Chr.	Kombatnakhi	Dryopteridaceae	Herb
126.	<i>Marsilea minuta</i> L.	-	Marsileaceae	Herb
127.	<i>Aleuritopteris albomarginata</i> (C.B.Clarke) Ching.	-	Pteridaceae	Herb
128.	<i>Aleuritopteris anceps</i> Blanf.	-	Pteridaceae	Herb
129.	<i>Aleuritopteris bicolor</i> (Roxb.) Fraser-Jenk.	-	Pteridaceae	Herb

130.	<i>Pityrogramma calomelanos</i> (L.) Link	-	Pteridaceae	Herb
131.	<i>Pteris biaurita</i> L.	-	Pteridaceae	Herb
132.	<i>Pteris pellucida</i> C. Presl.	-	Pteridaceae	Herb
133.	<i>Pteris vittata</i> L.	-	Pteridaceae	Herb
134.	<i>Selaginella ciliaris</i> (Ritz.) Spring,	Sangivani	Selaginellaceae	Herb
135.	<i>Selaginella delicatula</i> (Desv. ex Poir.) Alston.	Sangivani	Selaginellaceae	Herb
136.	<i>Christella dentata</i> (Forssk.) Brownsey and Jeremy.	-	Thelypteridaceae	Herb
137.	<i>Christella parasitica</i> (L.) Holttum.	-	Thelypteridaceae	Herb
138.	<i>Athyrium hohenackerianum</i> (Kunze) T. Moore	-	Woodsiaceae	Herb
139.	<i>Athyrium falcatum</i> Bedd.	-	Woodsiaceae	Herb
140.	<i>Diplazium esculentum</i> (Retz.) Sw.		Woodsiaceae	Herb
141.	<i>Hypodematum crenatum</i> (Forssk.) Kuhn	-	Woodsiaceae	Herb

Table 2: Documentation of Ethnomedicinal plants from vaidus, tribals and local peoples of Panhala tehsil

Botanical name	Common name	Family	Ethnomedicinal uses
Angiosperms			
<i>Justicia adhatoda</i> L.	Adulsa	Acanthaceae	bronchitis, asthma, fever, vomiting, tumours toothache pyorrhea, diarrhea & dysentery
<i>Trianthema portulacastrum</i> L.	-	Aizoaceae	itching, edema (dropsy or hydropsy) ascites, rheumatism, vermifuge, alcohol poisoning (as an antidote), bronchitis & piles.
<i>Allium cepa</i> L.	Kanda	Alliaceae	Seizure, cough, appetizer, sexual debility, heating & piles
<i>Allium sativum</i> L.	Lasun	Alliaceae	bronchitis, piles cold & dry cough
<i>Achyranthes aspera</i> L.	Agadha	Amaranthaceae	painful urinary conditions, swellings, kidney stones & urinary tract infections
<i>Alternanthera sessilis</i> (L.) R.Br. ex DC.	Sonkata	Amaranthaceae	skin diseases, cold cough, abortions eye conjunctivitis & chronic inflammation of the eyelid
<i>Amaranthus hybridus</i> L.	Math	Amaranthaceae	heavily bleeding during menstruation, inflammatory discharge from the vagina, fevers, urinary problems, diarrhea & dysentery
<i>Chenopodium album</i> L.	Chakvat	Amaranthaceae	calcium, vitamins, phosphorus, potassium, parasites of gastro-intestinal, purifies the blood & increases HB level
<i>Mangifera indica</i> L.	Amба	Anacardiaceae	Kapha, Vata Dosha heat stroke & wounds
<i>Semecarpus anacardium</i> L. f.	Bibba	Anacardiaceae	Indigestion, mental disabilities, sexual diseases, wound & cuts.
<i>Annona reticulata</i> L.	Ramphal	Annonaceae	potent astringent tonic, swelling tumors, dysentery diarrhea & intestinal worms
<i>Annona squamosa</i> L.	Shitaphal	Annonaceae	fever, skin diseases, swelling, tumors dysentery, diarrhea & intestinal worms
<i>Polyalthia longifolia</i> (Sonn.) Thwaites	Ashoka	Annonaceae	Hypertension, Helminthiasis, fever, heating, cough dysentery, diarrhea intestinal worms

<i>Coriandrum sativum</i> L.	Kothimber	Apiaceae	fever, digestive tracts, skin aliments, diabetes digestive disorders, Pitta, Kapha & Vata.
<i>Daucus carota</i> L.	Jangli Gajar	Apiaceae	Source of Vitamin A, enhance breast milk, & menstruation liver infections, jaundice, diuretic, anthelmintic
<i>Tabernaemontana divaricata</i> (L.) R. Br. ex Roem. & Schult.	Tagar	Apocynaceae	abdominal pains, hypertension, headache, toothache menstrual flow, sexual desire, tonic & purgative.
<i>Plumeria rubra</i> L.	Chafa	Apocynaceae	menstrual flow, sexual desire, tonic purgative, toothache & heat stroke
<i>Colocasia esculenta</i> (L.) Schott	Aalu	Araceae	liver problems, ulcers snakebites, diarrhea & body ache
<i>Gymnema sylvestre</i> (Retz.) R. Br. ex Schult.	Bedakicha pala	Asclepiadaceae	blood sugar levels diabetes, cough & snake bite.
<i>Asparagus racemosus</i> Willd.	Shatawari	Asparagaceae	ulcerative disorder of stomach, ulcers, worms, duodenal dyspepsia, uterus bronchitis & diabetes
<i>Ageratum conyzoides</i> L.	Osadi	Asteraceae	milk flow, wound healing, diarrhoea, dysentery, fever and intestinal worms,
<i>Artemisia annua</i> L.	Davna	Asteraceae	Malarial fever, dysentery, tuberculosis; fungal infections, common cold ache, jaundice), stomach pain, painful menstruation and joint pain
<i>Eclipta prostrata</i> L.	Bhrungraj	Asteraceae	jaundice and other liver infections, wounds, cuts, hair problems and swelling.
<i>Tridax procumbens</i> L.	Dagadipala	Asteraceae	wound cuts, hair problems, swelling cough, dysentery diarrhea, insecticide & pesticide
<i>Bombax ceiba</i> L.	Kate Sawar	Bombacaceae	Urinary disorders, Gynaecological disorders Diarrhoea Wounds, anti-pimples, fever, stomachache & diabetics
<i>Cordia dichotoma</i> G. Forst.	Bhokar	Boraginaceae	ulcer, wound healing, diabetes, laxative, fever, stomach disorders and intestinal worms
<i>Brassica juncea</i> (L.) Czern.	Mohari	Brassicaceae	fever, diarrhea, skin eruptions ulcers, muscular pains, stomach disorders, abscesses & rheumatism,
<i>Raphanus sativus</i> L.	Mula	Brassicaceae	cough, balances kapha and vata doshas, jaundice patients & purify the blood
<i>Caesalpinia pulcherrima</i> (L.) Sw.	Shankasur	Caesalpiniaceae	colds fevers, pimples toothache, stomach-aches, urinary bladder, kidney problems, ringworm & menstrual flow
<i>Cassia fistula</i> L.	Bahava	Caesalpiniaceae	colds fevers, digestive disorders skin infections burning sensations, dry cough & fever
<i>Saraca indica</i> L.	Sita Ashok	Caesalpiniaceae	balance the hormones jaundice, diarrhea, nasal disorders & white fluid secretion in women.
<i>Tamarindus indica</i> L.	Chinch	Caesalpiniaceae	wound healing, pain relief, diarrhea and dysentery

<i>Cannabis sativa</i> L.	Ganja	Cannabaceae	cough bronchitis jaundice, diarrhea, nasal disorders & bronchitis
<i>Capparis decidua</i> (Forssk.) Edgew.	Nepati	Capparaceae	asthma, cough, inflammation, fevers malaria, toothache, arthritis, swelling & joint pain
<i>Casuarina equisetifolia</i> L.	Suru	Casuarinaceae	Asthma, cough malaria, fevers, dysentery, diarrhoea & stomach-ache
<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Am.	Arjun	Combretaceae	Fever, dysentery kapha, pitha, wath mouth ulcers, skin diseases
<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Behada	Combretaceae	Piles, intestinal, worms, cough, asthma, cold fever jaundice
<i>Terminalia chebula</i> Retz.	Hirda	Combretaceae	cold fever, jaundice vata, pitta & kapha
<i>Glycyrrhiza glabra</i> L.	Jasthmadh	Fabaceae	sore throats, mouth ulcer, stomach, pitha, inflammatory stomach indigestion fever & cough
<i>Curculago orchoides</i> Gaertn.	Kali musali	Hypoxidaceae	piles, cough, asthma, jaundice, diarrhea, sexual transmitted diseases, urinary problems & white vaginal discharge
<i>Mentha arvensis</i> L.	Pudina	Lamiaceae	digestive problems secretion of milk fever, stomach, headaches digestive disorders
<i>Ocimum sanctum</i> L.	Tulsi	Lamiaceae	cold cough, fever, ulcers, asthma, bronchitis, headaches digestive problems malarial & typhoid flu
<i>Acacia arabica</i> (Lam.) Willd.	Khair	Leguminosae	cold cough, asthma, bronchitis, dysentery headaches, psoriasis wounds, toothaches intestinal worms
<i>A. nilotica</i> (L.) Willd. ex Delile	Babul	Leguminosae	urinary disorders, kidney stone, cold cough, wounds, throat infection, intestinal worms
<i>Bauhinia variegata</i> L.	Kanchan	Leguminosae	Diarrhea, indigestion stomachache intestinal worms, asthma & cough
<i>Bauhinia purpurea</i> L.	Rackt Kanchan	Leguminosae	wounds boils, sores cough, asthma bronchitis, joint pains burning vaginal flow
<i>Bauhinia racemosa</i> Lam.	Apta	Leguminosae	wounds, cough throat infections, rashes, pimples, allergic skin irritations
<i>Lawsonia inermis</i> L.	Mehandi	Lythraceae	hair disorders, amoebic dysentery, diarrhea, promote menstrual flow rashes & pimples
<i>Adansonia digitata</i> L.	Gorakh Chinch	Malvaceae	fever, diarrhea, inflammation, kidney diseases, asthma, blood purification
<i>Azadirachta indica</i> A. Juss.	Kadulimb	Meliaceae	skin diseases, pimples, cough, flu piles, intestinal worms, urinary diseases allergic skin irritations
<i>Syzygium cumini</i> (L.) Skeels	Jambul	Myrtaceae	diabetes, diarrhea, mouth ulcers, cough, dysentery, bleeding piles, stomachache & pyorrhea

<i>Boerhavia diffusa</i> L.	Ghetoli	Nyctaginaceae	diabetes, dysentery kidney disorders asthma, stomach disorders, impotence arthritis
<i>Boerhavia erecta</i> L.	Pandhari ghetoli	Nyctaginaceae	Arthritis, ophthalmia, conjunctivitis swelling of eyes bronchitis, stomach disorders, impotence
<i>Curcuma longa</i> L.	Halad	Zingiberaceae	intestinal worms wound healing, cough, asthma skin infections.
<i>Zingiber officinale</i> Roscoe	Aale	Zingiberaceae	cough, cold fever throat infections intestinal worms asthma, nausea vomiting, motion sickness
<i>Tribulus terrestris</i> L.	Sarata	Zygophyllaceae	urinary tract infections, cold cough, asthma, nausea
Pteridophytes			
<i>Adiantum philippense</i> L.	Necha	Adiantaceae	glandular swellings dysentery, ulcers burning sensation antidotes against snake bite
<i>Aleuritopteris bicolor</i> (Roxb.) Fraser-Jenk.	Necha	Pteridaceae	children tonic cough & diarrhea
<i>Selaginella delicatula</i> (Desv. ex Poir.) Alston.	Sangivani	Selaginellaceae	Wounds, high fever on head, amenorrhea
<i>Tectaria coadunata</i> (Wall. ex Hook. and Grev.) C. Chr.	Kombatnakhi	Tectariaceae	Asthma, bronchitis colitis, stomachache

district. However, ethnic information on other documented plants were either not known or hiding by the traditional practitioners. The information viz., botanical name, common name, family ethnomedicinal uses of plants given by the tribals/vaidus and local practitioners were documented in Table 2.

CONCLUSIONS

In present study, information on significant ethnomedicinal plants, which was collected from the traditional practitioners of Panhala Tehsil is documented. The plants were used to cure 35 different illness viz., fever (incl. viral, malarial & typhoid), diabetes, respiratory ailments (incl. asthma, bronchitis and cough), ulcers (mouth and stomach), skin ailments (incl. allergic skin irritations, fungal infections), eye ailments (incl. conjunctivitis and other problems), piles urinary tract infections, kidney disorders, wounds, arthritis, blood related problems, hair fall problems, snakebites, liver disorders, sexual disorders, gastro-intestinal disease (incl. worms, diarrhea & dysentery and stomach pains), heat stroke,

hypertension, muscular and other pains, rheumatism, gynaecological disorders, deficiency of vitamins and other elements, pyorrhea, motion sickness and vomiting, purgative, abortions, alcohol poisoning, anthelmintic, appetizer, diuretic, dyspepsia, helminthiasis, mental disabilities, seizure, tuberculosis.

REFERENCES

- Jain S K 1987 *Ethnobotany - Its Concepts and Relevance.* (Suppl. Vol.) 10th Botanical conference of Indian Botanical Society 3-12.
- Janaki Ammal E K and Prasad P N 1984 Ethnobotanical findings on *Costus speciosus* (Koen.) Sm. among the Kannikkars of Tamil Nadu. *Journal of Economic and Taxonomic Botany* **5** 129-133.
- Janaki Ammal E K 1954 The scope and functions of the reorganised Botanical Survey of India. *Science and Culture* **20** 275-280.
- Janaki Ammal E K 1956 Introduction to

subsistance economy of India. In: *William L. Thomas Jr. (ed.), Man's role in changing the face of the earth.* The University of Chicago Press, U.S.A pp 324-335.

Pal D C and Jain S K 1989 Notes on Lodha medicine in Midnapur District, West Bengl, India. *Economic Botany* **43** 464-470.

Pal D C and Jain S K 1998 *Tribal Medicine.* Naya Prokash, Culcutta.

Patil D A 2000 Sanskrit plant names in an ethnobotanical perspective. *Ethnobotany* **12** 60–64.

Joshi G C 1995 Ayurved anusandhan me vanaspatik sarvekshan evam papalaya ki avashyakta-ek sujhava (in hindi). *Miscellaneous Sachitra Ayurved* 525-526.

Sinha RK 1998 *Ethno-botany: The renaissance of traditional herbal medicine.* INA Shree Publishing Jaipur, pp. 22-27.

Maheswari J K 2000 *Ethnobotany and medicinal plants of Indian subcontinent.* Scientific Publishers pp 121-130.

Sikarwar R L 2002 Ethnogynaecological uses of plants new to India. *Ethnobotany* **14** 112-115.

Shrivastava N and Jain S 2005 Ethnomedicinal flora of Alnia river banks of Kota district in Rajasthan. *International Journal Mendel* **22** (1-2) 27 - 28.

Puspangadan P, George V and Ijinu T P 2016 *Ethnobotany, Ethnopharmacology, Bioprospecting, and Patenting.* In: Ethnobotany of India volume-1, Eastern Ghats and Deccan. Apple Academic Press pp 462-482.

Cook T 1903-08 *The flora of the presidency of Bombay* Vol-1-3. Taylor and Francis.

Almedia M R 1996-2009 *Flora of Maharashtra, Volume I-V.* Thomas Paul Almeida for Blatter Herbarium, St. Xavier's College, Mumbai.

Yadav S R and Sardesai M M 2002 *Flora of Kolhapur District.* Shivaji University Press.

Patil SM, Rawat VK, Patil SS and Dongare MM 2017 *Field guide to the pteridophytes of northern Western Ghats.* DKASC College Ichalkaranji.

Raunkiaer C 1934 *The Lifeforms of Plants and Statistical Plant Geography.* Clarendon Press, Oxford.

Mishra R 1968 *Ecology Work Book.* Oxford and IBH Publishing Co New Delhi, India.

Muller D and Ellenberg H 1974 *Aims and Methods of Vegetation Ecology.* John Wiley and Sons, New York.