

Flowering Plants of Ghughua Fossil Park, Madhya Pradesh, IndiaArjun Prasad Tiwari¹, C R Magesh², Naaz Rizvi²¹Botanical Survey of India, Central Regional Centre, Allahabad (U.P.) - 211 002²National Museum of Natural History, New Delhi-110003Telephone: 918004392787; E-mail: arjuntiwari2007@gmail.com

Abstract: The present work provides an account of flowering plants of the Ghughua Fossil Park, Madhya Pradesh, India as observed during two exploration tour. A total number of 452 species under 300 genera belonging to 80 families are recorded. Out of these 97 species in 62 genera and 13 families belong to monocot and 355 species in 238 genera and 67 families belong to dicot. Further analysis of data indicated that 244 species are occasional, 159 species are common, 27 species are rare, 19 species are frequent and 3 species are planted in the park.

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1. Introduction

Ghughua Fossil Park is a National Park, situated in Mandla district of Madhya Pradesh in India. This national park has plants in fossil form that existed in India anywhere between 40 million and 150 million years ago spread over seven villages of Mandla District (Ghuguwa, Umaria, Deorakhurd, Barbaspur, Chanti-hills, Chargaon and Deori Kohani). The Ghughua Fossil Park is an area that spreads over 274,100 km². The site was founded during the 1970 by Dr. Dharmendra Prasad, a statistical officer of the Mandla district and honorary secretary of the district archaeology unit. It was declared a National Park in 1983 by government of Madhya Pradesh. Numerous woody plants, climbers, leaf, flowers, fruit, seed, and shell fossils have been found here, some of which dates as far back as 65 million years, the most prominent of which are the palm fossils. A eucalyptus fossil found at Ghughua Fossil Park is the oldest fossil of its type ever discovered and this find supports its origins from Gondwana. Additional notable discoveries include a dinosaur egg fossil. Other fossilized plants include ancient forms of date palm, neem, jamun, banana, rudraksh, jackfruit and aonla. About 65 Million (6.5 crore) years ago, this area was covered by forests similar to the evergreen and semi evergreen forests of today's Western Ghats and northeast India. The forests were made up of moisture-loving plants. There was a three-tier forest structure consisting of low trees or shrubs growing below moderate to large-sized trees. The middle level had mostly palm-like trees.

The vegetation of the park is tropical dry deciduous. They are interspersed with swamps. The *Acacia catechu*, *A. leucophloea*, *Anogeissus latifolia*, *Buchanania cochinchinensis*, *Butea monosperma*, *Cassia fistula*, *Diospyros melanoxylon*, *Flacourtia*

indica, *Haldina cordifolia*, *Lannea coromandelica*, *Lagerstroemia parviflora*, *Phyllanthus emblica*, *Madhuca longifolia* var. *latifolia*, *Mitragyna parviflora*, *Terminalia alata*, *Wrightia tinctoria*, etc., are the common trees in around the park. Some common shrubs and undershrubs like *Grewia flavescens*, *Helicteres isora*, *Nyctanthes arbor-tristis*, *Urena lobata*, *Waltheria indica* and *Ziziphus nummularia* are found in the park area. The undergrowth is sparse and mainly constituted by *Achyranthes aspera*, *Ageratum conyzoides*, *Alysicarpus vaginalis*, *Blepharis maderaspatensis*, *Corchorus aestuans*, *Desmodium gangeticum*, *Elephantopus scaber*, *Hybanthus enneaspermus*, *Indigofera tinctoria*, *Lagascea mollis*, *Lindernia crustacea*, *Melochia corchorifolia*, *Pentanema indicum*, *Dicliptera paniculata*, *Pupalia lappacea*, *Cyanthillium cinereum*, *Tephrosia purpurea*, *Zornia gibbosa*, etc. and a large varieties of sedges and grasses like *Apluda mutica*, *Cyperus* spp., *Dichanthium annulatum*, *Eragrostis* spp., *Fimbristylis* spp., *Heteropogon contortus*, *Iseilema laxum*, *Oplismenus burmannii*, etc. Climbers are quite common in the park and consist of *Abrus precatorius*, *Ampelocissus latifolia*, *Cajanus scarabaeoides*, *Cryptolepis dubia*, *Cocculus hirsutus*, *Ichnocarpus frutescens*, *Dioscorea bulbifera*, *Pergularia daemia*, *Ventilago denticulata*, *Ziziphus oenoplia*, etc. *Dendrophthoe falcata* is the most common parasite in this park.

A review of literature indicates that Ghughua Fossil Park has received little attention of botanists. Botanical Survey of India has published Flora of Madhya Pradesh (Verma *et al.*, 1993; Mudgal *et al.*, 1997; Singh *et al.*, 2001; Khanna *et al.*, 2001) wherein the plants of Mandla district have also been included but no effort has been made to work out the floristic

account of fossil park in separately, while the vegetation of the park is very important for many more aspects. Thus, there is urgent need to study the floristic of the Ghughua Fossil Park separately in detail. It is also worth mentioning here that the Convention on Biological Diversity (CBD) and the Biological Diversity Bill 2002 of India have also laid emphasis on inventorisation of the rich biodiversity areas, so that a fair assessment can be made for sustainable utilization of bioresources. Keeping these

points in view, the present study has been undertaken to carry out the floristic diversity of Ghughua Fossil Park in order to help in formulating conservation strategies and measures for sustainable utilization of plant resources.

Enumeration

All the species have been enumerated in alphabetical order with the correct binomial, local name if any, family habit and status of plants (Table 1).

Table 1. Flowering plants of Ghughua Fossil Park, Madhya Pradesh, India

S. No.	Botanical Name / Local Name	Family	Habit	Status
1	<i>Abelmoschus ficulneus</i> (L.) Wight & Arn. ex Wight / Jangli Bhindi	Malvaceae	Shrub	O
2	<i>Abelmoschus manihot</i> (L.) Medik. subsp. <i>tetraphyllus</i> (Roxb. ex Hornem.) Borss. / Jangli Bhindi	Malvaceae	Shrub	O
3	<i>Abrus precatorius</i> L. / Ghughchi	Fabaceae	Climber	R
4	<i>Abutilon indicum</i> (L.) Sw. / Kanghi	Malvaceae	Shrub	O
5	<i>Acacia catechu</i> (L. f.) Willd. / Khair	Mimosaceae	Tree	C
6	<i>Acacia farnesiana</i> (L.) Willd.	Mimosaceae	Trees	O
7	<i>Acacia leucophloea</i> (Roxb.) Willd. / Reujha	Mimosaceae	Tree	C
8	<i>Acacia nilotica</i> (L.) Willd. ex Delile subsp. <i>indica</i> (Benth.) Brenan / Babool	Mimosaceae	Tree	O
9	<i>Acacia torta</i> (Roxb.) Craib / Ail	Mimosaceae	Shrub	O
10	<i>Acalypha indica</i> L. / Kuppi	Euphorbiaceae	Herb	O
11	<i>Acanthospermum hispidum</i> DC.	Asteraceae	Herb	C
12	<i>Achyranthes aspera</i> L. / Chirchira	Amaranthaceae	Herb	C
13	<i>Acmella uliginosa</i> (Sw.) Cass. / Van-akarkara	Asteraceae	Herb	O
14	<i>Acrocephalus hispidus</i> (L.) Nicolson & Sivadasan	Lamiaceae	Herb	O
15	<i>Aegle marmelos</i> (L.) Correa / Bel	Rutaceae	Tree	O
16	<i>Aerva lanata</i> (L.) Juss. ex Schult.	Amaranthaceae	Herb	C
17	<i>Aerva sanguinolenta</i> (L.) Blume	Amaranthaceae	Herb	O
18	<i>Ageratum conyzoides</i> L.	Asteraceae	Herb	F
19	<i>Ageratum houstonianum</i> Mill.	Asteraceae	Herb	O
20	<i>Ailanthus excelsa</i> Roxb. / Arlu	Simaroubaceae	Tree	O
21	<i>Alangium salvifolium</i> (L. f.) Wang / Ankol	Cornaceae	Tree	C
22	<i>Albizia lebbek</i> (L.) Benth / Kala Shirash	Mimosaceae	Tree	O
23	<i>Albizia odoratissima</i> (L. f.) Benth. / Chichva	Mimosaceae	Tree	C
24	<i>Albizia procera</i> (Roxb.) Benth.	Mimosaceae	Tree	O
25	<i>Alternanthera philoxeroides</i> (Mart.) Griseb.	Amaranthaceae	Herb	O
26	<i>Alternanthera pungens</i> Kunth	Amaranthaceae	Herb	O
27	<i>Alternanthera sessilis</i> (L.) R. Br. ex DC. / Gudsakari	Amaranthaceae	Herb	F
28	<i>Alysicarpus homosus</i> Edgew.	Fabaceae	Herb	C
29	<i>Alysicarpus monilifer</i> (L.) DC.	Fabaceae	Herb	F
30	<i>Alysicarpus rugosus</i> (Willd.) DC.	Fabaceae	Herb	O
31	<i>Alysicarpus vaginalis</i> (L.) DC.	Fabaceae	Herb	F
32	<i>Amaranthus spinosus</i> L.	Amaranthaceae	Herb	O
33	<i>Ampelocissus latifolia</i> (Roxb.) Planch. / Amraula	Vitaceae	Climber	O
34	<i>Andrographis echinoides</i> (L.) Nees	Acanthaceae	Herb	C
35	<i>Annona squamosa</i> L. / Sitaphal	Annonaceae	Shrub	O
36	<i>Anogeissus latifolia</i> (Roxb. ex DC.) Wall. ex Bedd. / Dhawa, Daawada	Combretaceae	Tree	C
37	<i>Anogeissus pendula</i> Edgew. / Kardhai	Combretaceae	Tree	O
38	<i>Apluda mutica</i> L. / Rathar	Poaceae	Herb	F
39	<i>Aristida adscensionis</i> L.	Poaceae	Herb	F
40	<i>Aristida redacta</i> Stapf	Poaceae	Herb	O
41	<i>Aristolochia indica</i> L.	Aristolochiaceae	Herb	R
42	<i>Arthraxon hispidus</i> (Thunb.) Makino	Poaceae	Herb	F
43	<i>Arthraxon lancifolius</i> (Trin.) Hochst.	Poaceae	Herb	F

44	<i>Arundinella pumila</i> (Hochst.) Steud.	Poaceae	Herb	O
45	<i>Arundo donax</i> L.	Poaceae	Herb	O
46	<i>Asparagus racemosus</i> Willd. / Satawar	Liliaceae	Climber	R
47	<i>Atylosia scarabaeoides</i> (L.) Benth. / Vankulthi	Fabaceae	Climber	C
48	<i>Azadirachta indica</i> A. Juss. / Neem	Meliaceae	Tree	O
49	<i>Bacopa monnieri</i> (L.) Wettst. / Bramhi	Scrophulariaceae	Herb	R
50	<i>Balanites aegyptiaca</i> (L.) Delile / Ingudi	Balanitaceae	Tree	O
51	<i>Baliospermum solanifolium</i> (Burm.) Suresh / Danti	Euphorbiaceae	Herb	O
52	<i>Barleria cristata</i> L.	Acanthaceae	Herb	C
53	<i>Barleria prionitis</i> L. / Katsariya	Acanthaceae	Shrub	O
54	<i>Bauhinia racemosa</i> Lam. / Kathmahula	Caesalpiniaceae	Tree	C
55	<i>Bauhinia vahlii</i> Wight & Arn. / Mahul	Caesalpiniaceae	Climber	O
56	<i>Bidens biternata</i> (Lour.) Merr. & Sherff.	Asteraceae	Herb	C
57	<i>Biophytum sensitivum</i> (L.) DC. / Lajalu	Oxalidaceae	Herb	C
58	<i>Blainvillea acmella</i> (L.) Philipson	Asteraceae	Herb	F
59	<i>Blepharis integrifolia</i> (L.f.) E. Mey. ex Schinz	Acanthaceae	Herb	C
60	<i>Blepharis maderaspatensis</i> (L.) Heyne ex Roth	Acanthaceae	Herb	C
61	<i>Blumea axillaris</i> (Lam.) DC.	Asteraceae	Herb	O
62	<i>Blumea lacera</i> (Burm. f.) DC. / Kukraudha	Asteraceae	Herb	O
63	<i>Blumea membranacea</i> DC.	Asteraceae	Herb	C
64	<i>Boerhavia diffusa</i> L. / Punarva	Nyctaginaceae	Herb	C
65	<i>Bombax ceiba</i> L. / Semal	Bombacaceae	Tree	O
66	<i>Boswellia serrata</i> Roxb. ex Colebr. / Semal	Burseraceae	Tree	O
67	<i>Brachiaria reptans</i> (L.) C.A.Gardner & C.E.Hubb.	Poaceae	Herb	C
68	<i>Bridelia retusa</i> (L.) Spreng. / Kasai	Euphorbiaceae	Tree	O
69	<i>Buchanania cochinchinensis</i> (Lour.) M.R.Almeida / Achaar, Chaar	Anacardiaceae	Tree	O
70	<i>Butea monosperma</i> (Lam.) Taub. / Palash	Fabaceae	Tree	C
71	<i>Calotropis gigantea</i> (L.) R. Br. / Madar	Asclepiadaceae	Shrub	O
72	<i>Calotropis procera</i> (Aiton) R. Br. / Madar	Asclepiadaceae	Shrub	O
73	<i>Canscora decussata</i> (Roxb.) Roem & Schult.	Gentianaceae	Herb	O
74	<i>Canscora diffusa</i> (Vahl) R.Br. ex Roem. & Schult.	Gentianaceae	Herb	C
75	<i>Capillipedium assimile</i> (Steud.) A. Camus	Poaceae	Herb	O
76	<i>Capparis sepiaria</i> L.	Capparaceae	Shrub	O
77	<i>Capparis zeylanica</i> L. / Karerua	Capparaceae	Climber	C
78	<i>Cardiospermum halicacabum</i> L. / Kanphuti	Sapindaceae	Climber	C
79	<i>Carissa opaca</i> Stapf ex Haines / Van-karauda	Apocynaceae	Shrub	C
80	<i>Carissa spinarum</i> L. / Van-karauda	Apocynaceae	Shrub	C
81	<i>Casearia graveolens</i> Dalzell / Berri	Flacourtiaceae	Tree	O
82	<i>Casearia tomentosa</i> Roxb. / Berri	Flacourtiaceae	Tree	C
83	<i>Cassia fistula</i> L. / Amaltas	Caesalpiniaceae	Tree	C
84	<i>Cassine albens</i> (Retz.) Kosterm. / Jamrasi	Celastraceae	Tree	O
85	<i>Catunaregam spinosa</i> (Thunb.) Tirveng. / Mainhar	Rubiaceae	Shrub	O
86	<i>Cayratia trifolia</i> (L.) Domin	Vitaceae	Climber	C
87	<i>Celastrus paniculatus</i> Willd. / Malkangni	Celastraceae	Climber	O
88	<i>Celosia argentea</i> L.	Amaranthaceae	Herb	F
89	<i>Ceriscoides turgida</i> (Roxb.) Tirveng. / Kharhar	Rubiaceae	Tree	O
90	<i>Chamaecrista absus</i> (L.) Irwin & Barneby.	Caesalpiniaceae	Herb	F
91	<i>Chamaecrista mimosoides</i> (L.) Greene	Caesalpiniaceae	Herb	C
92	<i>Chamaecrista pumila</i> (Lam.) V. Singh	Caesalpiniaceae	Herb	C
93	<i>Chlorophytum arundinaceum</i> Baker / Safed Musli	Liliaceae	Herb	R
94	<i>Chrozophora rottleri</i> (Geiseler) Adr.	Euphorbiaceae	Herb	O
95	<i>Cissampelos pareira</i> L. / Padin	Menispermaceae	Climber	C
96	<i>Cissus repanda</i> (Wight & Arn.) Vahl / Dokar-bel	Vitaceae	Climber	O
97	<i>Cleome viscosa</i> L. / Hurhur	Capparaceae	Herb	O
98	<i>Clerodendrum phlomidis</i> L.f. / Arni	Verbenaceae	Shrub	O
99	<i>Coccinia grandis</i> (L.) Voigt. / Kundru	Cucurbitaceae	Climber	C
100	<i>Cocculus hirsutus</i> (L.) Diels / Jaljamni	Menispermaceae	Climber	C
101	<i>Colebrookea oppositifolia</i> Sm.	Lamiaceae	Shrub	R
102	<i>Commelina benghalensis</i> L.	Commelinaceae	Herb	C

103	<i>Commicarpus chinensis</i> (L.) Heimerl	Nyctaginaceae	Herb	O
104	<i>Convolvulus arvensis</i> L.	Convolvulaceae	Climber	C
105	<i>Convolvulus prostratus</i> Forssk. / Shankpushpi	Convolvulaceae	Herb	C
106	<i>Corchorus aestuans</i> L.	Tiliaceae	Herb	C
107	<i>Corchorus capsularis</i> L.	Tiliaceae	Herb	O
108	<i>Corchorus fascicularis</i> Lam.	Tiliaceae	Herb	C
109	<i>Corchorus tridens</i> L.	Tiliaceae	Herb	C
110	<i>Corchorus trilocularis</i> L.	Tiliaceae	Herb	C
111	<i>Cordia dichotoma</i> G.Forst./ Lasoda	Boraginaceae	Tree	O
112	<i>Cordia macleodii</i> Hook.f. & Thomson / Dahiman	Boraginaceae	Tree	R
113	<i>Courtoisina cyperoides</i> (Roxb.) Soják Kuekenth.	Cyperaceae	Herb	O
114	<i>Crinum defixum</i> Ker-Gawl.	Amoryllidaceae	Herb	R
115	<i>Crotalaria hebecarpa</i> (DC.) Rudd.	Fabaceae	Herb	C
116	<i>Crotalaria orixensis</i> Rottler	Fabaceae	Herb	O
117	<i>Crotalaria prostrata</i> Rottler ex Willd.	Fabaceae	Herb	C
118	<i>Croton bonplandianus</i> Baill.	Euphorbiaceae	Herb	C
119	<i>Cryptolepis dubia</i> (Burm.f.) M.R.Almeida / Dudhi	Asclepiadaceae	Climber	C
120	<i>Cucumis melo</i> L. / Pehti	Cucurbitaceae	Herb	O
121	<i>Cullen corylifolium</i> (L.) Medik. / Bakuchi	Fabaceae	Herb	O
122	<i>Curculigo orchiodes</i> Gaertn. / Kali Musli	Hypoxidaceae	Herb	O
123	<i>Curcuma amada</i> Roxb. / Ama-haldi	Zingiberaceae	Herb	R
124	<i>Cuscuta reflexa</i> Roxb. / Amar-bel	Convolvulaceae	Parasite	O
125	<i>Cyanotis cristata</i> (L.) D. Don	Commelinaceae	Herb	O
126	<i>Cyanthillium cinereum</i> (L.) H.Rob. / Sahdevi	Asteraceae	Herb	C
127	<i>Cyathocline purpurea</i> (Buch.-Ham. ex D. Don) Kuntze	Asteraceae	Herb	C
128	<i>Cynodon dactylon</i> (L.) Pers. / Doob	Poaceae	Herb	C
129	<i>Cyperus compressus</i> L.	Cyperaceae	Herb	O
130	<i>Cyperus difformis</i> L.	Cyperaceae	Herb	O
131	<i>Cyperus esculentus</i> L.	Cyperaceae	Herb	O
132	<i>Cyperus exaltatus</i> Retz.	Cyperaceae	Herb	O
133	<i>Cyperus iria</i> L.	Cyperaceae	Herb	O
134	<i>Cyperus platystylis</i> R. Br.	Cyperaceae	Herb	O
135	<i>Cyperus rotundus</i> L. / Nagar-motha	Cyperaceae	Herb	C
136	<i>Cyperus squarrosus</i> L.	Cyperaceae	Herb	C
137	<i>Dactyloctenium aegyptium</i> (L.) P. Beauv.	Poaceae	Herb	C
138	<i>Dalbergia latifolia</i> Roxb. / Sheesham	Fabaceae	Tree	R
139	<i>Dalbergia sissoo</i> Roxb.	Fabaceae	Tree	O
140	<i>Dendrocalamus strictus</i> (Roxb.) Nees / Baans	Poaceae	Tree	O
141	<i>Dendrophthoe falcata</i> (L. f.) Etting. / Banda	Loranthaceae	Parasite	O
142	<i>Desmodium dihotomum</i> (Willd.) DC.	Fabaceae	Herb	O
143	<i>Desmodium gangeticum</i> (L.) DC. / Salparni	Fabaceae	Herb	C
144	<i>Desmodium neomexicanum</i> A. Grey	Fabaceae	Herb	O
145	<i>Desmodium oojeinense</i> (Roxb.) H.Ohashi / Tinsa	Fabaceae	Tree	R
146	<i>Desmodium triflorum</i> (L.) DC.	Fabaceae	Herb	C
147	<i>Desmodium velutinum</i> (Willd.) DC.	Fabaceae	Shrub	O
148	<i>Desmostachya bipinnata</i> (L.) Stapf / Kusa	Poaceae	Herb	O
149	<i>Dichanthium annulatum</i> (Forssk.) Stapf	Poaceae	Herb	C
150	<i>Dichanthium aristatum</i> (Poir.) Hubb.	Poaceae	Herb	C
151	<i>Dichrostachys cinerea</i> (L.) Wight & Arn. / Khejari	Mimosaceae	Tree	O
152	<i>Dicliptera paniculata</i> (Forssk.) I.Darbysh.	Acanthaceae	Herb	C
153	<i>Dicliptera verticillata</i> (Forssk.) C.Chr.	Acanthaceae	Herb	C
154	<i>Digera muricata</i> (L.) Mart.	Amaranthaceae	Herb	C
155	<i>Digitaria abludens</i> (Roem. & Schult.) Veldk.	Poaceae	Herb	O
156	<i>Digitaria bicornis</i> (Lam.) Roem. & Schult. ex Loud	Poaceae	Herb	O
157	<i>Digitaria ciliaris</i> (Retz.) Koeler	Poaceae	Herb	C
158	<i>Dinebra retroflexa</i> (Vahl) Paz.	Poaceae	Herb	C
159	<i>Dioscorea bulbifera</i> L. / Barahi-kand	Dioscoreaceae	Climber	C
160	<i>Dioscorea pentaphylla</i> L.	Dioscoreaceae	Climber	O
161	<i>Diospyros cordifolia</i> Roxb.	Ebenaceae	Tree	O

162	<i>Diospyros melanoxylon</i> Roxb.	Ebenaceae	Tree	C
163	<i>Diplocyclos palmatus</i> (L.) Jeffery / Shivlingi	Cucurbitaceae	Climber	O
164	<i>Dipteracanthus prostratus</i> (Poir.) Nees	Acanthaceae	Herb	C
165	<i>Dolichandrone falcata</i> (Wall. ex DC.) Seem. / Tamoli	Bignoniaceae	Tree	O
166	<i>Echinops echinatus</i> Roxb. / Utkatara	Asteraceae	Herb	O
167	<i>Eclipta prostrata</i> (L.) L. / Ghamira	Asteraceae	Herb	C
168	<i>Ehretia laevis</i> Roxb. / Chamrol	Boraginaceae	Tree	O
169	<i>Eleocharis congesta</i> D. Don	Cyperaceae	Herb	O
170	<i>Eleocharis geniculata</i> (L.) Roem. & Schult	Cyperaceae	Herb	O
171	<i>Eleocharis spiralis</i> (Rottb.) Roem. & Schult.	Cyperaceae	Herb	O
172	<i>Elephantopus scaber</i> L.	Asteraceae	Herb	C
173	<i>Eleusine indica</i> (L.) Gaertn.	Poaceae	Herb	O
174	<i>Elytraria acaulis</i> (L. f.) Lindau	Acanthaceae	Herb	O
175	<i>Emilia sonchifolia</i> (L.) DC.	Asteraceae	Herb	C
176	<i>Eragrostiella bifaria</i> (Vahl) Bor	Poaceae	Herb	O
177	<i>Eragrostis ciliaris</i> (L.) R. Br.	Poaceae	Herb	C
178	<i>Eragrostis coarctata</i> Stapf	Poaceae	Herb	O
179	<i>Eragrostis diarrhena</i> (Schult.) Steud.	Poaceae	Herb	O
180	<i>Eragrostis japonica</i> (Thunb.) Trin.	Poaceae	Herb	C
181	<i>Eranthemum purpurascens</i> Wight ex Nees	Acanthaceae	Herb	O
182	<i>Eriocaulon quinquangulare</i> L.	Eriocaulaceae	Herb	C
183	<i>Eriolaena candollei</i> Wall. / Mothi	Sterculiaceae	Shrub	R
184	<i>Euphorbia chamaesyce</i> L. / Dudhi	Euphorbiaceae	Herb	O
185	<i>Euphorbia heterophylla</i> L.	Euphorbiaceae	Herb	C
186	<i>Euphorbia hirta</i> L. / Dudhi	Euphorbiaceae	Herb	C
187	<i>Euphorbia hypericifolia</i> L.	Euphorbiaceae	Herb	C
188	<i>Euphorbia neriifolia</i> L. / Sehud	Euphorbiaceae	Shrub	O
189	<i>Euphorbia thymifolia</i> L.	Euphorbiaceae	Herb	O
190	<i>Evolvulus alsinoides</i> (L.) L. / Neeli Shankhpushpi	Convolvulaceae	Herb	O
191	<i>Evolvulus nummularius</i> (L.) L.	Convolvulaceae	Herb	C
192	<i>Ficus benghalensis</i> L. / Bargad	Moraceae	Tree	O
193	<i>Ficus hispida</i> L. f. / Kathumar	Moraceae	Tree	O
194	<i>Ficus mollis</i> Vahl	Moraceae	Tree	O
195	<i>Ficus racemosa</i> L. / Gular	Moraceae	Tree	O
196	<i>Ficus religiosa</i> L. / Peepal	Moraceae	Tree	O
197	<i>Ficus virens</i> Dryander / Pakar	Moraceae	Tree	O
198	<i>Fimbristylis bisumbellata</i> (Forssk.) Bubani	Cyperaceae	Herb	C
199	<i>Fimbristylis dichotoma</i> (L.) Vahl	Cyperaceae	Herb	C
200	<i>Fimbristylis littoralis</i> Gaud.	Cyperaceae	Herb	O
201	<i>Fimbristylis miliacea</i> (L.) Vahl	Cyperaceae	Herb	C
202	<i>Fimbristylis ovata</i> (Burm. f.) Kern	Cyperaceae	Herb	C
203	<i>Firmiana simplex</i> (L.) W. Wight / Kullu	Sterculiaceae	Tree	R
204	<i>Flacourtia indica</i> (Burm. f.) Merr. / Kakai	Flacourtiaceae	Tree	C
205	<i>Gardenia latifolia</i> Ait. / Papda	Rubiaceae	Tree	O
206	<i>Garuga pinnata</i> Roxb. / Kekar	Burseraceae	Tree	O
207	<i>Gloriosa superba</i> L. / Kalihari	Liliaceae	Climber	R
208	<i>Gmelina arborea</i> Roxb. / Khamer	Verbenaceae	Tree	R
209	<i>Gnaphalium pensylvanicum</i> Willd.	Asteraceae	Herb	C
210	<i>Gnaphalium polycaulon</i> Pers.	Asteraceae	Herb	O
211	<i>Gomphrena celosoides</i> Mart.	Asteraceae	Herb	O
212	<i>Grangea maderaspatana</i> (L.) Poir.	Asteraceae	Herb	C
213	<i>Grewia flavescens</i> Juss. / Sirali	Tiliaceae	Shrub	C
214	<i>Grewia hirsuta</i> Vahl / Gudsakari	Tiliaceae	Shrub	C
215	<i>Grewia rothii</i> DC. / Gangeran	Tiliaceae	Shrub	R
216	<i>Grewia tiliifolia</i> Vahl / Dhamin, Dhankat	Tiliaceae	Tree	R
217	<i>Gymnema sylvestre</i> (Retz.) R. Br. ex Schult. / Gudmar	Asclepiadaceae	Climber	R
218	<i>Haldina cordifolia</i> (Roxb.) Ridsd. / Haldu	Rubiaceae	Tree	O
219	<i>Helicteres isora</i> L. / Madorphali	Sterculiaceae	Shrub	C
220	<i>Heliotropium zeylanicum</i> (Burm. f.) Lam.	Boraginaceae	Herb	O

221	<i>Hemidesmus indicus</i> (L.) R. Br. / Dudhi	Asclepiadaceae	Climber	O
222	<i>Heteropogon contortus</i> (L.) P. Beauv. ex Roem. & Schult.	Poaceae	Herb	F
223	<i>Hibiscus lobatus</i> (Murraya) Kuntze	Malvaceae	Herb	C
224	<i>Hibiscus micranthus</i> L.f.	Malvaceae	Shrub	O
225	<i>Hibiscus panduriformis</i> Burm. f.	Malvaceae	Herb	C
226	<i>Hiptage benghalensis</i> (L.) Kurz	Malpighiaceae	Climber	R
227	<i>Holarrhena pubescens</i> Wall. ex G. Don / Kurraya, Kurchi	Apocynaceae	Tree	O
228	<i>Holoptelea integrifolia</i> (Roxb.) Planch. / Chilbil	Ulmaceae	Tree	C
229	<i>Holostemma ada-kodien</i> Schult.	Asclepiadaceae	Climber	O
230	<i>Hoppea dichotoma</i> Heyne ex Willd.	Gentianaceae	Herb	C
231	<i>Hybanthus enneaspermus</i> (L.) F.v. Muell.	Violaceae	Herb	C
232	<i>Hydrilla verticillata</i> (L. f.) Royel	Hydrocharitaceae	Herb	F
233	<i>Hygrophila auriculata</i> (Schumach.) Heine / Taalmakahan	Acanthaceae	Herb	C
234	<i>Hygrophila polysperma</i> (Roxb.) T. Anderson	Acanthaceae	Herb	F
235	<i>Hygrophila serpyllum</i> (Nees) T. Anderson	Acanthaceae	Herb	R
236	<i>Hyptis suaveolens</i> (L.) Poit. / Janglee-tulsi	Lamiaceae	Herb	F
237	<i>Ichnocarpus frutescens</i> (L.) W.T.Aiton / Dhimar-bel	Apocynaceae	Climber	C
238	<i>Indigofera astragalina</i> DC.	Fabaceae	Herb	O
239	<i>Indigofera cordifolia</i> Heyne ex Roth	Fabaceae	Herb	C
240	<i>Indigofera linifolia</i> (L. f.) Retz.	Fabaceae	Herb	C
241	<i>Indigofera linnaei</i> Ali	Fabaceae	Herb	C
242	<i>Indigofera tinctoria</i> L. / Neel	Fabaceae	Shrub	O
243	<i>Indigofera trita</i> L. f.	Fabaceae	Herb	O
244	<i>Ipomoea aquatica</i> Forssk. / Karemua	Convolvulaceae	Herb	C
245	<i>Ipomoea eriocarpa</i> R. Br.	Convolvulaceae	Herb	O
246	<i>Ipomoea hederifolia</i> L.	Convolvulaceae	Climber	O
247	<i>Ipomoea nil</i> (L.) Roth / Kala-dana	Convolvulaceae	Climber	C
248	<i>Ipomoea obscura</i> (L.) Ker-Gawl.	Convolvulaceae	Climber	C
249	<i>Ipomoea pes-tigridis</i> L.	Convolvulaceae	Climber	O
250	<i>Ipomoea sinensis</i> (Desr.) Choisy	Convolvulaceae	Herb	O
251	<i>Ischaemum rugosum</i> Salisb.	Poaceae	Herb	C
252	<i>Iseilema laxum</i> Hack.	Poaceae	Herb	C
253	<i>Iseilema prostratum</i> (L.) Anderss.	Poaceae	Herb	C
254	<i>Ixora pavetta</i> Andrews / Khujjha	Rubiaceae	Shrub	O
255	<i>Juncellus pygmaeus</i> (Rottb.) C.B.Clarke	Cyperaceae	Herb	O
256	<i>Justicia diffusa</i> Willd. var. <i>diffusa</i>	Acanthaceae	Herb	C
257	<i>Justicia prostrata</i> (C.B. Clarke) Gamble	Acanthaceae	Herb	C
258	<i>Justicia quinqueangularis</i> Koenig ex Roxb.	Acanthaceae	Herb	O
259	<i>Kydia calycina</i> Roxb. / Barga, Kapsia	Malvaceae	Tree	O
260	<i>Kyllinga brevifolia</i> Rottb.	Cyperaceae	Herb	C
261	<i>Lagascea mollis</i> Cav.	Asteraceae	Herb	O
262	<i>Lagerstroemia parviflora</i> Roxb. / Sendha	Lythraceae	Tree	C
263	<i>Lannea coromandelica</i> (Houtt.) Merr. / Gurja, Jingan	Anacardiaceae	Tree	C
264	<i>Lantana camara</i> L.	Verbenaceae	Shrub	F
265	<i>Launaea procumbens</i> (Roxb.) Ramayya & Rajagopal	Asteraceae	Herb	O
266	<i>Leonotis nepetifolia</i> (L.) R. Br.	Lamiaceae	Herb	O
267	<i>Lepidagathis cristata</i> Willd. / Sherbaitika	Acanthaceae	Herb	O
268	<i>Lepidagathis trinervis</i> Wall. ex Nees	Acanthaceae	Herb	C
269	<i>Leucas aspera</i> (Willd.) Link	Lamiaceae	Herb	O
270	<i>Leucas cephalotes</i> (Koenig ex Roth) Spreng.	Lamiaceae	Herb	O
271	<i>Leucas decedentata</i> (Willd.) R.Br. ex Sm.	Lamiaceae	Herb	C
272	<i>Limnophila indica</i> (L.) Druce	Scrophulariaceae	Herb	O
273	<i>Limonia acidissima</i> L. / Kaitha	Rutaceae	Tree	O
274	<i>Lindenbergia indica</i> (L.) Vatke	Scrophulariaceae	Herb	O
275	<i>Lindernia antipoda</i> (L.) Alston	Scrophulariaceae	Herb	O
276	<i>Lindernia ciliata</i> (Colsm.) Pennell	Scrophulariaceae	Herb	O
277	<i>Lindernia crustacea</i> (L.) F.v. Muell.	Scrophulariaceae	Herb	C
278	<i>Litsea glutinosa</i> (Lour.) Robinson	Lauraceae	Tree	R
279	<i>Lobelia alsinoides</i> Lam.	Campanulaceae	Herb	O

280	<i>Ludwigia adscendens</i> (L.) Hara	Onagraceae	Herb	O
281	<i>Ludwigia hyssopifolia</i> (G. Don) Presl	Onagraceae	Herb	C
282	<i>Ludwigia octovalvis</i> (Jacq.) Raven	Onagraceae	Herb	C
283	<i>Ludwigia perennis</i> L.	Onagraceae	Herb	C
284	<i>Lysiloma latisiliquum</i> (L.) Benth.	Mimosaceae	Tree	P
285	<i>Madhuca longifolia</i> (J. Koenig) Macbr. var. <i>latifolia</i> (Roxb.) Chevalier / Mahua	Sapotaceae	Tree	C
286	<i>Mallotus philippensis</i> (Lam.) Muell. Arg. / Sinduri	Euphorbiaceae	Tree	O
287	<i>Malvastrum coromandelianum</i> (L.) Garcke	Malvaceae	Herb	C
288	<i>Manilkara hexandra</i> (Roxb.) Dubard / Khirmi	Sapotaceae	Tree	O
289	<i>Mariscus concinnus</i> Scharder ex Nees	Cyperaceae	Herb	O
290	<i>Mariscus squarrosus</i> (L.) C.B. Clarke	Cyperaceae	Herb	O
291	<i>Marsdenia tenacissima</i> (Roxb.) Moon / Chinahur	Asclepiadaceae	Climber	O
292	<i>Martynia annua</i> L. / Bagnakha	Pedaliaceae	Herb	O
293	<i>Maytenus emarginata</i> (Willd.) Ding-Hou / Baikal	Celastraceae	Shrub	O
294	<i>Mazus pumilus</i> (Burm.f.) Steenis	Scrophulariaceae	Herb	O
295	<i>Mecardonia procumbens</i> (Mill.) Small	Scrophulariaceae	Herb	O
296	<i>Melanocenchris jacquemontii</i> Jaub. & Spach	Poaceae	Herb	O
297	<i>Melochia corchorifolia</i> L.	Sterculiaceae	Herb	O
298	<i>Merremia aegyptia</i> (L.) Urb.	Convolvulaceae	Climber	O
299	<i>Merremia emarginata</i> (Burm. f.) Hallier f.	Convolvulaceae	Herb	O
300	<i>Merremia tridentata</i> (L.) Hallier f.	Convolvulaceae	Herb	O
301	<i>Milium tomentosum</i> (Roxb.) Sinclair / Kari	Annonaceae	Tree	O
302	<i>Millettia extensa</i> (Benth.) Baker / Guhilari	Fabaceae	Climber	O
303	<i>Mimosa himalayana</i> Gamble / Ail	Mimosaceae	Tree	O
304	<i>Mitragyna parvifolia</i> (Roxb.) Korth. / Kaima	Rubiaceae	Tree	O
305	<i>Mollugo pentaphylla</i> L.	Molluginaceae	Herb	O
306	<i>Momordica dioica</i> Roxb. ex Willd. / Padora	Cucurbitaceae	Climber	O
307	<i>Morinda pubescens</i> Sm.	Rubiaceae	Tree	O
308	<i>Mucuna pruriens</i> (L.) DC. / Van-kewach	Fabaceae	Climber	O
309	<i>Mukia maderaspatana</i> (L.) Roem.	Cucurbitaceae	Herb	O
310	<i>Murdannia nudiflora</i> (L.) Brenan	Commelinaceae	Herb	C
311	<i>Murdannia spirata</i> (L.) Brückner	Commelinaceae	Herb	O
312	<i>Murdannia vaginata</i> (L.) Brückner	Commelinaceae	Herb	O
313	<i>Murraya paniculata</i> (L.) Jacq. / Hathil	Rutaceae	Shrub	O
314	<i>Nanorrhinum ramosissimum</i> (Wall.) Betsche	Scrophulariaceae	Herb	O
315	<i>Naringi crenulata</i> (Roxb.) Nicolson / Billi, Bilsena	Rutaceae	Tree	R
316	<i>Nepeta hindostana</i> (Heyne ex Roth) Haines	Lamiaceae	Herb	O
317	<i>Nothosaerva brachiata</i> (L.) Wight	Amaranthaceae	Herb	O
318	<i>Nyctanthes arbor-tristis</i> L. / Khirsali	Oleaceae	Shrub	C
319	<i>Nymphaea nouchali</i> Burm. f.	Nymphaeaceae	Herb	O
320	<i>Nymphaea pubescens</i> Willd.	Nymphaeaceae	Herb	O
321	<i>Nymphoides hydrophylla</i> (Lour.) Kuntze	Menyanthaceae	Herb	O
322	<i>Ocimum americanum</i> L. / Mahri	Lamiaceae	Herb	C
323	<i>Oldenlandia affinis</i> (Roem. & Schult.) DC.	Rubiaceae	Herb	C
324	<i>Oldenlandia corymbosa</i> L.	Rubiaceae	Herb	C
325	<i>Oldenlandia ovatifolia</i> (Cav.) DC.	Rubiaceae	Herb	O
326	<i>Operculina turpethum</i> (L.) Silva Manso / Nisoth	Convolvulaceae	Climber	O
327	<i>Ophiuros exaltatus</i> (L.) Kuntze	Poaceae	Herb	O
328	<i>Oplismenus burmannii</i> (Retz.) P. Beauv.	Poaceae	Herb	F
329	<i>Oplismenus compositus</i> (L.) P. Beauv.	Poaceae	Herb	O
330	<i>Orthosiphon pallidus</i> Royle ex Benth.	Lamiaceae	Herb	O
331	<i>Oxalis corniculata</i> L.	Oxalidaceae	Herb	C
332	<i>Paspalidium flavidum</i> (Retz.) A. Camus	Poaceae	Herb	O
333	<i>Paspalum vaginatum</i> Sw.	Poaceae	Herb	O
334	<i>Pavonia zeylanica</i> (L.) Cav.	Malvaceae	Herb	O
335	<i>Pennisetum pedicellatum</i> Trin.	Poaceae	Herb	O
336	<i>Pentanema indicum</i> (L.) Ling	Asteraceae	Herb	C
337	<i>Pergularia daemia</i> (Forssk.) Chiov. / Dudhi-bel	Asclepiadaceae	Climber	O
338	<i>Persicaria barbata</i> (L.) H.Hara	Polygonaceae	Herb	C

339	<i>Persicaria glabra</i> (Willd.) M.Gómez	Polygonaceae	Herb	C
340	<i>Petalidium barlerioides</i> (Roth) Nees	Acanthaceae	Shrub	O
341	<i>Phoenix sylvestris</i> (L.) Roxb. / Chind, Khajoor	Arecaceae	Tree	O
342	<i>Phragmites karka</i> (Retz.) Trin. ex Steud.	Poaceae	Herb	O
343	<i>Phyla nodiflora</i> (L.) E. Greene	Verbenaceae	Herb	C
344	<i>Phyllanthus amarus</i> Schumach. & Thonn. / Bhui-amla	Euphorbiaceae	Herb	C
345	<i>Phyllanthus emblica</i> L. / Amla	Euphorbiaceae	Tree	C
346	<i>Phyllanthus maderaspatensis</i> L.	Euphorbiaceae	Herb	C
347	<i>Phyllanthus reticulatus</i> Poir.	Euphorbiaceae	Shrub	O
348	<i>Phyllanthus urinaria</i> L. / Bhui-amla	Euphorbiaceae	Herb	C
349	<i>Phyllanthus virgatus</i> G.Forst. / Bhui-amla	Euphorbiaceae	Herb	O
350	<i>Phyllodium pulchellum</i> (L.) Desv.	Fabaceae	Shrub	O
351	<i>Physalis minima</i> L. / Chirpota	Solanaceae	Herb	O
352	<i>Physalis peruviana</i> L. / Chirpota	Solanaceae	Herb	O
353	<i>Pithecellobium dulce</i> (Roxb.) Benth. / Jangal-jalebee	Mimosaceae	Tree	O
354	<i>Plumbago zeylanica</i> L. / Chittrak	Plumbaginaceae	Shrub	R
355	<i>Polycarpon prostratum</i> (Forssk.) Asch. & Schweinf.	Caryophyllaceae	Herb	O
356	<i>Polygala arvensis</i> Willd.	Polygalaceae	Herb	O
357	<i>Polygala erioptera</i> DC.	Polygalaceae	Herb	O
358	<i>Polygonum plebeium</i> R. Br.	Polygonaceae	Herb	C
359	<i>Polypogon monspeliensis</i> (L.) Desf.	Poaceae	Herb	C
360	<i>Pongamia pinnata</i> (L.) Pierre / Karanj	Fabaceae	Tree	O
361	<i>Porana paniculata</i> Roxb.	Convolvulaceae	Climber	O
362	<i>Potamogeton crispus</i> L.	Potamogetonaceae	Herb	O
363	<i>Potamogeton nodosus</i> Poir.	Potamogetonaceae	Herb	O
364	<i>Potamogeton pectinatus</i> L.	Potamogetonaceae	Herb	C
365	<i>Pterospermum acerifolium</i> (L.) Willd.	Fabaceae	Tree	P
366	<i>Pulicaria angustifolia</i> DC.	Asteraceae	Herb	O
367	<i>Pupalia lappacea</i> (L.) Juss.	Amaranthaceae	Herb	C
368	<i>Pycneus flavidus</i> (Retz.) Koyama	Cyperaceae	Herb	C
369	<i>Rhynchosia capitata</i> DC.	Fabaceae	Herb	C
370	<i>Rhynchosia minima</i> (L.) DC.	Fabaceae	Herb	C
371	<i>Rivea hypocrateriformis</i> (Desr.) Choisy	Convolvulaceae	Climber	O
372	<i>Rorippa indica</i> (L.) Hiern	Brassicaceae	Herb	O
373	<i>Rotala indica</i> (Willd.) Koehne	Lythraceae	Herb	O
374	<i>Rotala rotundifolia</i> (Roxb.) Koehne	Lythraceae	Herb	O
375	<i>Rungia pectinata</i> (L.) Nees	Acanthaceae	Herb	C
376	<i>Rungia repens</i> (L.) Nees	Acanthaceae	Herb	C
377	<i>Saccharum bengalense</i> Retz.	Poaceae	Herb	O
378	<i>Saccharum spontaneum</i> L. / Kaas	Poaceae	Herb	C
379	<i>Sacciolepis indica</i> (L.) Chase	Poaceae	Herb	O
380	<i>Salvia plebeia</i> R. Br.	Lamiaceae	Herb	O
381	<i>Santalum album</i> L.	Santalaceae	Tree	P
382	<i>Schoenefeldia gracilis</i> Kunth	Poaceae	Herb	R
383	<i>Scirpus articulatus</i> L.	Cyperaceae	Herb	O
384	<i>Scirpus juncoides</i> Roxb.	Cyperaceae	Herb	O
385	<i>Scirpus lateriflorus</i> J.F. Gmelin	Cyperaceae	Herb	O
386	<i>Scoparia dulcis</i> L.	Scrophulariaceae	Herb	O
387	<i>Securinega virosa</i> (Roxb. ex Willd.) Baill.	Euphorbiaceae	Shrub	O
388	<i>Senna obtusifolia</i> (L.) Irwin & Barneby	Caesalpiniaceae	Herb	O
389	<i>Senna occidentalis</i> (L.) Link / Kasaudhi	Caesalpiniaceae	Shrub	O
390	<i>Senna tora</i> (L.) Roxb. / Chakauda	Caesalpiniaceae	Herb	C
391	<i>Setaria glauca</i> (L.) P. Beauv.	Poaceae	Herb	C
392	<i>Setaria intermedia</i> Roem. & Schult.	Poaceae	Herb	O
393	<i>Setaria verticillata</i> (L.) P. Beauv.	Poaceae	Herb	C
394	<i>Sida acuta</i> Burm. f. / Bariyari	Malvaceae	Herb	C
395	<i>Sida cordata</i> (Burm. f.) Borss.	Malvaceae	Herb	C
396	<i>Sida cordifolia</i> L. / Khareti	Malvaceae	Herb	O
397	<i>Sida rhombifolia</i> L.	Malvaceae	Herb	C

398	<i>Sigesbeckia orientalis</i> L.	Asteraceae	Herb	O
399	<i>Smilax zeylanica</i> L. / Ramdatoun	Smilacaceae	Climber	R
400	<i>Smithia conferta</i> Sm.	Fabaceae	Herb	O
401	<i>Solanum incanum</i> L. / Van-bhanta	Solanaceae	Shrub	O
402	<i>Solanum nigrum</i> L. / Makoy	Solanaceae	Herb	C
403	<i>Solanum virginianum</i> L. / Bhatkatiya	Solanaceae	Herb	C
404	<i>Solena amplexicaulis</i> (Lam.) Gandhi	Cucurbitaceae	Herb	O
405	<i>Sopubia delphinifolia</i> (L.) G. Don	Scrophulariaceae	Herb	O
406	<i>Soyimida febrifuga</i> (Roxb.) A. Juss. / Rohina	Meliaceae	Tree	O
407	<i>Spermacoce hispida</i> L.	Rubiaceae	Herb	O
408	<i>Spermacoce pusilla</i> Wall.	Rubiaceae	Herb	O
409	<i>Sphaeranthus indicus</i> L. / Gorakhmundi	Asteraceae	Herb	C
410	<i>Sporobolus diander</i> (Retz.) P. Beauv.	Poaceae	Herb	C
411	<i>Sporobolus fertilis</i> (Steud.) W.D. Clayton	Poaceae	Herb	O
412	<i>Sporobolus tenuissimus</i> (Schrank) Kuntze	Poaceae	Herb	O
413	<i>Streblus asper</i> Lour.	Moraceae	Tree	O
414	<i>Syzygium cumini</i> (L.) Skeels / Jamun	Myrtaceae	Tree	O
415	<i>Syzygium heyneanum</i> Wallich ex Wight & Arnott	Myrtaceae	Tree	O
416	<i>Tamarindus indica</i> L. / Imli	Caesalpiniaceae	Tree	O
417	<i>Tephrosia pumila</i> (Lam.) Pers.	Fabaceae	Herb	O
418	<i>Tephrosia purpurea</i> (L.) Pers. / Sarpunkha	Fabaceae	Herb	C
419	<i>Teramnus labialis</i> (L.f.) Spreng.	Fabaceae	Climber	C
420	<i>Teramnus mollis</i> Benth.	Fabaceae	Herb	O
421	<i>Terminalia alata</i> Heyne ex Roth / Saja	Combretaceae	Tree	O
422	<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Arn. / Arjun, Kahu	Combretaceae	Tree	C
423	<i>Terminalia bellirica</i> (Gaertn.) Roxb. / Baheda	Combretaceae	Tree	O
424	<i>Terminalia chebula</i> Retz. / Harra	Combretaceae	Tree	R
425	<i>Themeda quadrivalvis</i> (L.) Kuntze	Poaceae	Herb	F
426	<i>Thespesia lampas</i> (Cav.) Dalz. & Gibs. / Ban-kapas	Malvaceae	Shrub	O
427	<i>Tiliacora acuminata</i> (Lam.) Miers	Menispermaceae	Climber	O
428	<i>Tinospora sinensis</i> (Lour.) Merr. / Giloy	Menispermaceae	Climber	O
429	<i>Tragus roxburghii</i> Panigrahi	Poaceae	Herb	O
430	<i>Tridax procumbens</i> L. / Ghavpala	Asteraceae	Herb	C
431	<i>Triumfetta pentandra</i> A. Rich. / Bala	Tiliaceae	Herb	C
432	<i>Triumfetta rhomboidea</i> Jacq.	Tiliaceae	Herb	O
433	<i>Triumfetta rotundifolia</i> Lam.	Tiliaceae	Shrub	O
434	<i>Uraria picta</i> (Jacq.) Desv. / Pithwan	Fabaceae	Herb	R
435	<i>Urena lobata</i> L.	Malvaceae	Shrub	C
436	<i>Urginea indica</i> (Roxb.) Kunth / Van-payaj	Liliaceae	Herb	C
437	<i>Utricularia stellaris</i> L.f.	Lentibulariaceae	Herb	O
438	<i>Vallisneria spiralis</i> (L.) Kuntze / Dudhi-bel	Apocynaceae	Climber	O
439	<i>Vanda tessellata</i> (Roxb.) Hook. ex G. Don / Band	Orchidaceae	Parasite	O
440	<i>Ventilago denticulata</i> Willd. / Kevti	Rhamnaceae	Climber	O
441	<i>Vetiveria zizanioides</i> (L.) Nash / Khas	Poaceae	Herb	O
442	<i>Vigna umbellata</i> (Thunb.) Ohwi & Ohashi	Fabaceae	Herb	O
443	<i>Vitex negundo</i> L. / Nirgundi	Verbenaceae	Shrub	O
444	<i>Waltheria indica</i> L.	Sterculiaceae	Herb	C
445	<i>Woodfordia fruticosa</i> (L.) Kurz / Dhawai	Lythraceae	Shrub	C
446	<i>Wrightia tinctoria</i> R. Br. ssp. <i>rothii</i> (G. Don) Ngan / Dudhi	Apocynaceae	Tree	C
447	<i>Xanthium indicum</i> Koen. / Gochhhuru	Asteraceae	Herb	F
448	<i>Ziziphus mauritiana</i> Lam. / Ber	Rhamnaceae	Tree	O
449	<i>Ziziphus nummularia</i> (Burm. f.) Wight & Arn. / Jharberi	Rhamnaceae	Shrub	C
450	<i>Ziziphus oenoplia</i> (L.) Mill. / Barari	Rhamnaceae	Shrub	C
451	<i>Ziziphus xylopyra</i> (Retz.) Willd. / Ghothar	Rhamnaceae	Tree	O
452	<i>Zornia gibbosa</i> Span.	Fabaceae	Herb	O

Abbreviation: Common (C), Frequent (F), Occasional (O), Rare (R), Planted (P)

Discussion

The present study reveals that 452 species of angiosperms under 300 genera belonging to 80 families are found in Ghughua Fossil Park, Madhya Pradesh. Out of these 97 species in 62 genera and 13 families belong to monocot and 355 species in 238 genera and 67 families belong to dicot (Fig. 1).

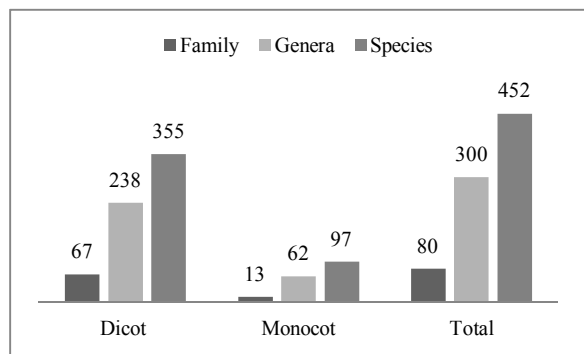


Fig.1. Status of families, genera and species in Ghughua Fossil Park

Dominant families (Fig. 2) with maximum number of species found in the park are Poaceae (48 spp.), Fabaceae (40 spp.), Asteraceae (27 spp.), Cyperaceae (25 spp.), Acanthaceae (21 spp.), Euphorbiaceae (19 spp.), Convolvulaceae (18 spp.), Malvaceae (15 spp.), Mimosaceae and Rubiaceae (12 spp. each).

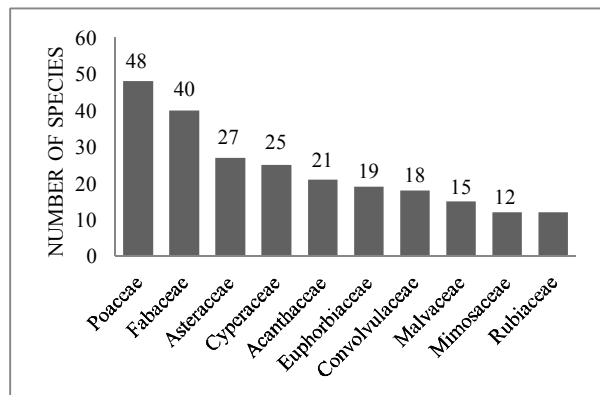


Fig. 2. Ten dominant families in Ghughua Fossil Park

An analysis has further pointed out that ten dominant genera (Fig. 3) with maximum number of species in the district are *Cyperus* (8 spp.), *Ipomoea* (7 spp.), *Desmodium*, *Ficus*, *Indigofera*, *Euphorbia*, *Phyllanthus* (6 spp. each), *Acacia*, *Corchorus* and *Eragrostis* (5 spp. each).

The 10 species are found in restricted area of the park and their population is very poor, represented by very few individuals. These are *Abrus precatorius*, *Aristolochia indica* L., *Bacopa monnieri* (L.) Wettst., *Cordia macleodii* Hook.f. & Thomson, *Gloriosa superba* L., *Gmelina arborea* Roxb., *Gymnema sylvestre* (Retz.) R. Br. ex Schult., *Litsea glutinosa* (Lour.) Robinson, *Plumbago zeylanica* L. and *Uraria picta* (Jacq.) Desv. Thus, the present findings are highly significant as these provide the latest status of angiospermic plant wealth of the park which will be useful to botanists, foresters and planners.

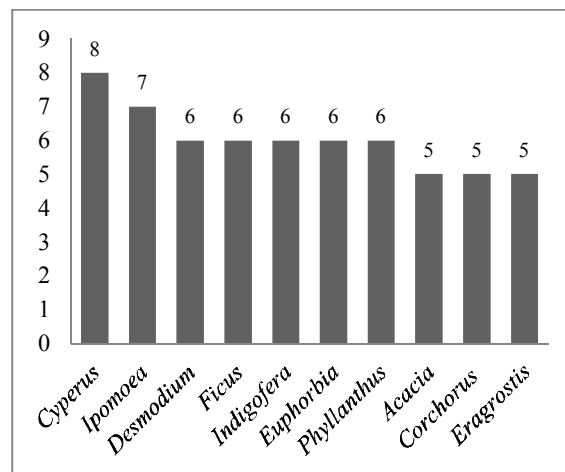


Fig. 3. Dominant genera of in Ghughua Fossil Park

Out of a total number of 452 species of angiosperms, 283 species are herbs, 40 species are shrubs, 83 species are trees, 43 species are climbers and 3 species are parasites in (Fig. 4).

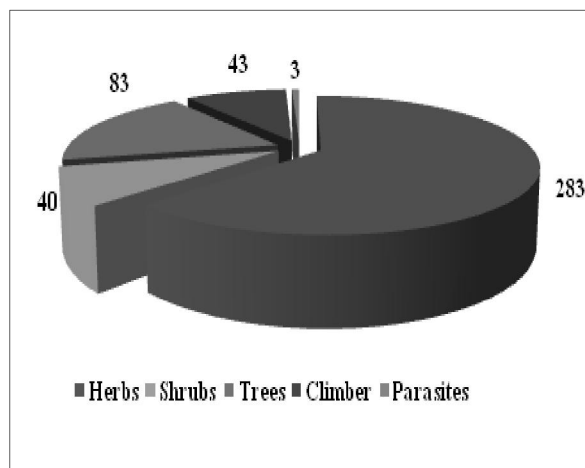


Fig. 4. Habit-wise distribution of flowering plants in Ghughua Fossil Park

The data of field observation have pointed out that 244 species are occasional, 159 species are common, 27 species are rare, 19 species are frequent and 3 species are planted in the park. (Fig. 5).

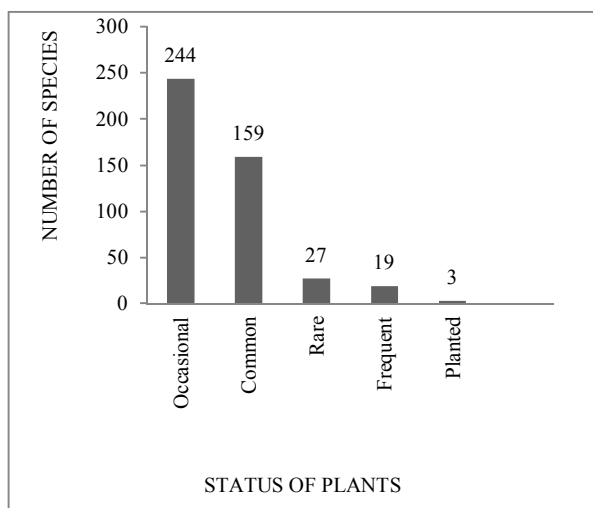


Fig. 5. Status of flowering plants in Ghughua Fossil Park

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