

Angiospermic Diversity of the Kurze Dam Region: A Floristic Survey from Talasari Taluka, Palghar District, Maharashtra, India

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Abstract: The present study aims to exploring angiospermic diversity of the Kurze dam region of Talasari taluka, Maharashtra, India. Kurze dam is an earthfill dam constructed on Viroli river and one of the prominent water body in the Talasari taluka. During the present investigation recorded a total of 248 species belonging to 200 genera and 75 families of angiosperms were documented from the Kurze dam, Talasari taluka, Palghar district Maharashtra, India. The study area was found with both monocotyledon as well as dicotyledon plants. Out of the 248 species, 209 species under the 167 genera belong to dicotyledon families whereas 39 species of 33 genera belong to monocotyledon families Fabaceae is the principal family among dicots in the study area contributing 43 species while Poaceae is the dominant family among monocots represented by 7 species. This documentation serves as a valuable contribution to the botanical knowledge of the lesser-studied Kurze Dam area and provides baseline data for future ecological and conservation research.

Keywords: Angiosperms, Diversity, Kurze dam, Talasari taluka, Viroli river, Palghar.

1. INTRODUCTION:

Floristic and taxonomic studies provide efficient information about different aspects of an ecosystem, including nomenclature, distribution, ecology and utility of plant species of an area (Grime et al., 2014). Floristic diversity within a specific area is referred to as the variety of plant species scattered in a particular area, which is based on climate conditions, the appearance of vegetation and biotic influences (Gaston and Spicer 2013). The state Maharashtra occupies a unique phytogeographical position, encompassing parts of the Western Ghats—one of the global biodiversity hotspots—along with the Deccan plateau and coastal ecosystems. This ecological heterogeneity makes Maharashtra exceptionally rich in angiospermic diversity (Almeida, 1996–2003). The documentation of floristic studies is crucial for understanding present diversity status. Reflecting the need for developing and developed countries to evaluate their plant resources, floristic studies have added significant importance in recent years (Vediya S.D., 2011). The most important part of any floristic survey is the correct scientific identification of the plant wealth found in that particular area (Jasrai et al,2014).

2. LITERATURE REVIEW:

The floristic studies conducted in earlier decades primarily focused on broader regions of Thane District or the Western Ghats belt, leaving many local ecosystems in Palghar inadequately documented (Nath V.B. 1983; Vartak V.D. 1984; Nair N.C. 1986; Singh et al., 2001; Nipunage et al., 2016; Poojari H. et al., 2017; Patil D., 2017; Chaudhari S.R., 2021; Raut et al., 2022). The study area exhibits a rich plant diversity and this region has been given little attention. Therefore, this area is selected for floristic diversity.

3. OBJECTIVES:

The objectives of the present study to systematically explore, identify, and document the angiospermic plants associated with Kurze Dam region, Talasari taluka, Palghar district, Maharashtra.

both monocotyledon as well as dicotyledon plants. Out of the 248 species, 209 species under the 167 genera belong to dicotyledon families whereas 39 species of 33 genera belong to monocotyledon families (Fig-2.)

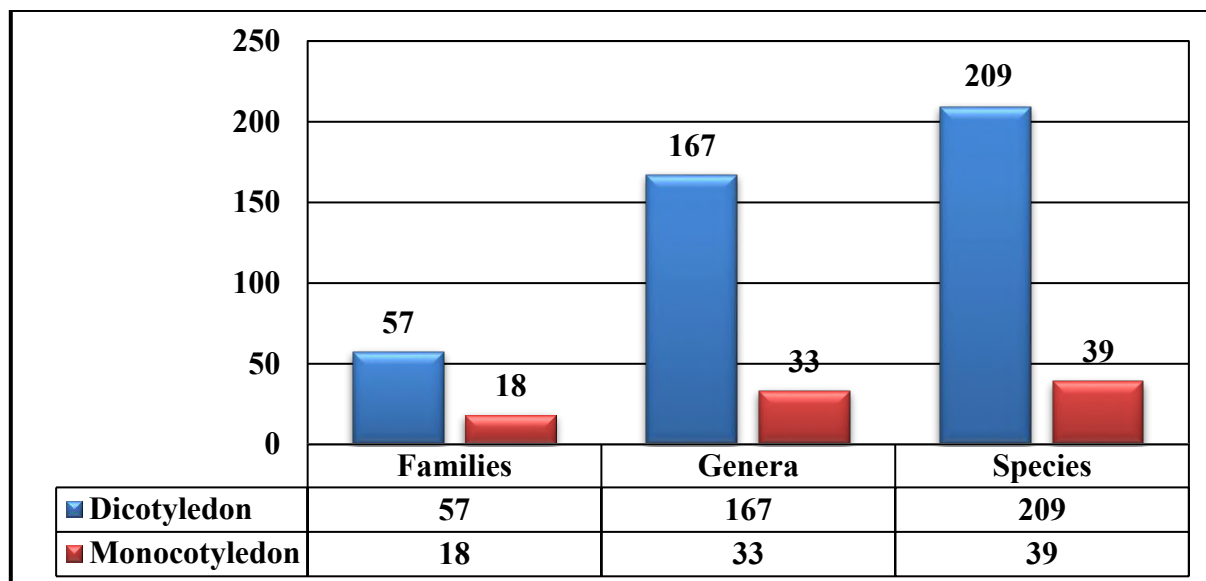


Fig. 2. Comparison between Monocotyledonae and Dicotyledonae

Among which the dicotyledon plants represent the largest group, comprising approximately 85 % of the total flora, while monocotyledons accounts for 15 %. (Fig. 03). The habit wise distribution of angiospermic plant species represents that herbs contribute 147 (59%) species and are the dominant while Tree 48 (20%), Shrubs 28 (11%) and climbers show 25 (10%) in study area (Fig. 4).

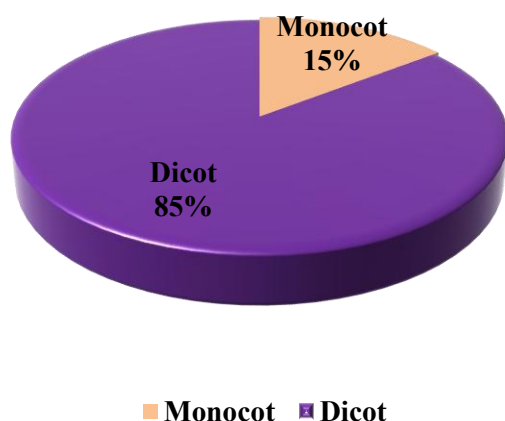


Fig. 3. Pie chart showing percentage of monocots and dicots reported from the study area.

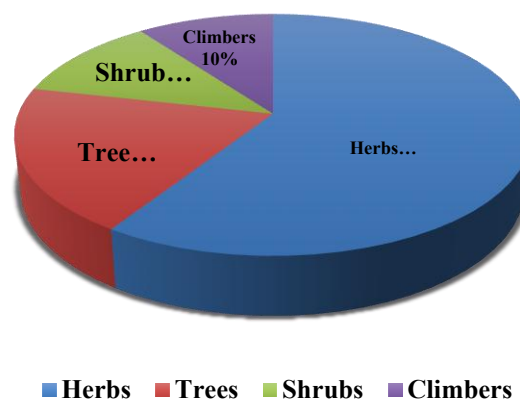


Fig. 4. Pie chart showing habit wise distribution of the angiosperms in the study area.

A close look into the Fig. 5. specifies that Fabaceae is the principal family among dicots in the study area contributing 43 (17%) species followed by Malvaceae 18 (7%), Asteraceae 12 (5%), Acanthaceae 10 (4%), Convolvulaceae 9 (4%), Apocynaceae 8 (3%) while Poaceae is the dominant family among monocots represented by 7 (3%) two more families Cyperaceae and Araceae contributing 5 (2%) species each. Hydrocharitaceae and Potamogetonaceae represented 3 (1%) species each.

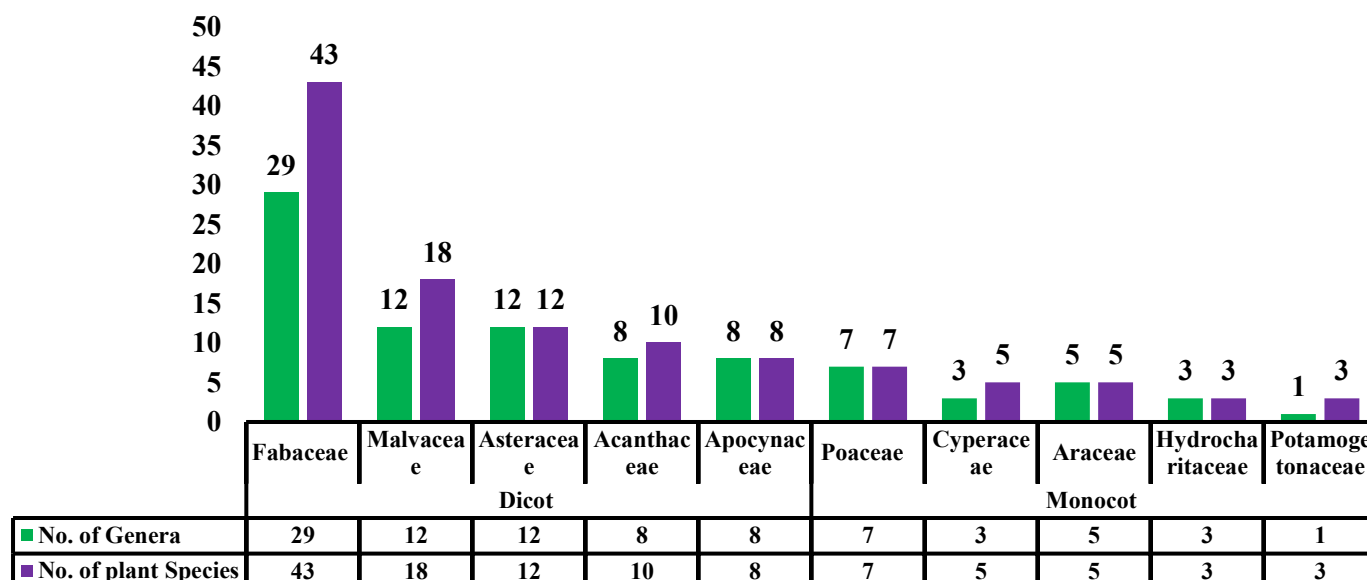


Fig. 5. Top five Dicotyledonous and Monocotyledonous dominant families with genera and plants species reported in study area.

Some of the rare plant species observed during the survey, *Rhinacanthus nasutus* (L.) Kurz, *Utricularia vulgaris* L., *Cleome chelidonii* L.f., *Flemingia tuberosa* Dalz., *Aeginetia indica* L., *Vanda testacea* (Lindl.) Rehb.f. *Arisaema tortuosum* (Wall.) Schott. were found in the study area. Therefore, there is a need to protect and conserve this species for the future generation.

6. DISCUSSION:

The floristic diversity recorded in the Kurze Dam region indicates a rich and heterogeneous angiospermic composition. The dominance of herbaceous species is typical of regions experiencing seasonal rainfall and human interference which promote the growth of fast-growing annuals and perennials where dicots showing wide ecological adaptation. The floristic vegetation is affected by overgrazing, minor deforestation for fuelwood, construction of new road through forest areas and agriculture expansion along the dam's periphery are impacting the natural vegetation. Without proper management, native vegetation pattern may be changed in the future. The present study provides a significant gap, as the Kurze Dam region had not been explored floristically in detail earlier. The data serves as a baseline for future botanical, ecological, and conservation-oriented studies

7. CONCLUSION:

The present floristic survey provides the comprehensive documentation of angiospermic diversity in the Kurze Dam region of Talasari Taluka, Palghar District, Maharashtra. The study documented 248 species belonging 200 genera and 75 families, contributing the botanical richness of the area. The dominance of Fabaceae and Poaceae contributes the major vegetation patterns of the region. The findings indicate the ecological value of the Kurze Dam landscape and highlight the need for conservation awareness and involvement of local communities. Habitat protection, and continuous monitoring can help preserve this unique floral diversity. This baseline data will be vital for future biodiversity assessments, ecological modeling, and conservation planning. Future research can focus on ethnomedicinal uses, phytochemical constituents, faunal interactions, and long-term ecological monitoring to better understand and protect this biodiverse region

Table 1: List of Angiospermic plant species documented from study area with botanical name, Family, Local names, monocot/ dicot and Habit.

Sr. No	Botanical Name	Family	Local Name	Monocot / Dicot	Habit
1.	<i>Abelmoschus esculentus</i> (L.)	Malvaceae	Bhendi	Dicot	Herb
2	<i>Abelmoschus moschatus</i> Medicus Malv.	Malvaceae	Kasturi bhend	Dicot	Herb
3	<i>Abrus precatorius</i> L. Syst. Nat	Fabaceae	Gunja	Dicot	Climber

4	<i>Acacia auriculiformis</i> A. Cunn. ex. Benth	Fabaceae	Mast	Dicot	Tree
5	<i>Acacia catechu</i> (L.f.) Willd.	Fabaceae	Khair	Dicot	Tree
6	<i>Acacia nilotica</i> (L.) Willd. ex Del	Fabaceae	Babhul	Dicot	Tree
7	<i>Acanthospermum hispidum</i> DC.	Asteraceae	Katephul	Dicot	Herb
8	<i>Achyranthes aspera</i> L.	Amaranthaceae	Aghada	Dicot	Herb
9	<i>Aeginetia indica</i> L.	Orobanchaceae	Gulabdani	Dicot	Herb
10	<i>Aegle marmelos</i> (L.)	Rutaceae	Bel	Dicot	Tree
11	<i>Aeschynomene americana</i> L.	Fabaceae	-----	Dicot	Herb
12	<i>Aeschynomene indica</i> L.	Fabaceae	-----	Dicot	Herb
13	<i>Agave americana</i> L.,	Agavaceae	Kektad	Monocot	Herb
14	<i>Aloe vera</i> (L.) Burm	Asphodelaceae	Korphad	Monocot	Herb
15	<i>Alternanthera sessilis</i> (L.) R.Br.	Amaranthaceae	-----	Dicot	Herb
16	<i>Alysicarpus bupleurifolius</i> (L.) DC.	Fabaceae	-----	Dicot	Herb
17	<i>Alysicarpus glumaceus</i> (Vahl.) DC.	Fabaceae	-----	Dicot	Herb
18	<i>Alysicarpus hamosus</i> Edg.,	Fabaceae	-----	Dicot	Herb
19	<i>Alysicarpus longifolius</i> (Roth. ex. Spring.) Wight and Arn.	Fabaceae	-----	Dicot	Herb
20	<i>Alysicarpus vaginalis</i> (L.) DC	Fabaceae	-----	Dicot	Herb
21	<i>Amaranthus viridis</i> L.	Amaranthaceae	Math	Dicot	Herb
22	<i>Ammania baccifera</i> L.	Lythraceae	Dadmari	Dicot	Herb
23	<i>Amorphophallus paeoniifolius</i> (Dennst.) Nicols.	Araceae	Suran	Monocot	Herb
24	<i>Ampelocissus latifolia</i> (Roxb.)	Vitaceae	Koland	Dicot	Climber
25	<i>Anacardium occidentale</i> L.	Anacardiaceae	Kaju	Dicot	Tree
26	<i>Andrographis paniculata</i> (Burm.f.) Wall.	Acanthaceae	Kalmeg	Dicot	Herb
27	<i>Annona reticulata</i> L.	Annonaceae	Ramphal	Dicot	Tree
28	<i>Annona squamosa</i> L	Annonaceae	Sitaphal	Dicot	Tree
29	<i>Anogeissus latifolia</i> (Roxb. exDC.) Wall	Combretaceae	Dhawada	Dicot	Tree
30	<i>Apluda mutica</i> L.	Poaceae	Tambat	Monocot	Herb
31	<i>Argemone mexicana</i> L	Papaveraceae	Kardai	Dicot	Herb
32	<i>Arisaema tortuosum</i> (Wall.) Schott	Araceae	Sapkanda	Monocot	Herb
33	<i>Arthraxon lancifolius</i> (Trin.) Hochst.	Poaceae	-----	Monocot	Herb
34	<i>Asparagus racemosus</i> Willd. var. <i>javanica</i> (Kunth.) Baker	Asparagaceae	Shatavari	Dicot	Shrub
35	<i>Azadirachta indica</i> Juss.	Meliaceae	Kadu Nimbh	Dicot	Tree
36	<i>Bacopa monnieri</i> (L.) Wettst.	Plantaginaceae	-----	Dicot	Herb
37	<i>Barleria prionitis</i> L.	Acanthaceae	Aboli	Dicot	Shrub
38	<i>Basella alba</i> L.	Basellaceae	Velbondi	Dicot	Climber
39	<i>Bauhinia racemosa</i> Lam.	Fabaceae	Apta	Dicot	Tree
40	<i>Bergia ammannioides</i> Roxb.	Elainaceae	-----	Dicot	Herb
41	<i>Biophytum sensitivum</i> (L.) DC.,	Oxalidaceae	Lajalu	Dicot	Herb
42	<i>Blumea lacera</i> (Burm.f.) DC	Asteraceae	Bhuranda	Dicot	Herb
43	<i>Boerhavia diffusa</i> (L.) Hook	Nyctaginaceae	Punarnava	Dicot	Herb
44	<i>Bombax ceiba</i> L.	Malvaceae	Kate savar	Dicot	Tree
45	<i>Breynia retusa</i> (Dennst.) Alst.	Phyllanthaceae	Kangli	Dicot	Shrub
46	<i>Bridelia retusa</i> (L.) Juss	Phyllanthaceae	Aasan	Dicot	Tree
47	<i>Butea monosperma</i> (Lam.) Taub.	Fabaceae	Palas	Dicot	Tree
48	<i>Butea superba</i> Roxb. ex Willd	Fabaceae	Palasvel	Dicot	Shrub
49	<i>Caesulia axillaris</i> Roxb.	Asteraceae	-----	Dicot	Herb
50	<i>Cajanus cajan</i> (L.) Millsp	Fabaceae	Tur	Dicot	Shrub
51	<i>Cajanus scarabaeoides</i> (L.) Du Petit-Thou	Fabaceae	Rantur	Dicot	Climber
52	<i>Calotropis gigantea</i> (L.) R. Br	Apocynaceae	Rui	Dicot	Shrub
53	<i>Calycopteris floribunda</i> (Roxb.) Poir	Combretaceae	Ukshi	Dicot	Shrub
54	<i>Canna indica</i> L.	Cannaceae	Kardal	Monocot	Herb

55	<i>Canscora diffusa</i> (Vahl.) R. Br	Gentianaceae	-----	Dicot	Herb
56	<i>Capparis zeylanica</i> L.	Capparaceae	Wagati	Dicot	Shrub
57	<i>Careya arborea</i> Roxb.	Lecythidaceae	Kumbhi	Dicot	Tree
58	<i>Carissa carandus</i> L.	Apocynaceae	Karvanda	Dicot	Shrub
59	<i>Casearia graveolens</i> Dalz. Hook. J. Bot., and Kew Gard	Flacourtiaceae	Kiramra	Dicot	Tree
60	<i>Cassia fistula</i> L.	Fabaceae	Bahava	Dicot	Tree
61	<i>Catharanthus roseus</i> (L.) G. Don	Apocynaceae	Sadaphuli	Dicot	Herb
62	<i>Causonis trifolia</i> (L.) Mabb. & J.Wen	Vitaceae	-----	Dicot	Climber
63	<i>Celastrus paniculatus</i> Willd.	Celastraceae	Malkangani	Dicot	Shrub
64	<i>Celosia argentea</i> L.	Amaranthaceae	Kurdu	Dicot	Herb
65	<i>Centranthera indica</i> (L.) Gamble	Orobanchaceae	Undirkani	Dicot	Herb
66	<i>Ceratophyllum demersum</i> L.	Ceratophyllaceae	-----	Monocot	Herb
67	<i>Chloris barbata</i> Sw.	Poaceae	Ghohya	Monocot	Herb
68	<i>Chromolaena odorata</i> (L.) R.M.King & H.Rob.	Asteraceae	-----	Dicot	Shrub
69	<i>Cicer arietinum</i> L.	Fabaceae	Harbhara	Dicot	Herb
70	<i>Cissampelos pareira</i> L. var. <i>hirsuta</i> (Buch. - Ham. Ex DC).	Menispermaceae	Bhatvel	Dicot	Climber
71	<i>Cleome chelidonii</i> L.f.	Cleomaceae	-----	Dicot	Herb
72	<i>Cleome viscosa</i> L.	Cleomaceae	Pivala Tilavani	Dicot	Herb
73	<i>Clerodendrum inerme</i> (L.) Gaertn.	Lamiaceae	Mehandi	Dicot	Shrub
74	<i>Clitoria biflora</i> Dalz.,	Fabaceae	Gokarn	Dicot	Herb
75	<i>Clitoria ternatea</i> L.	Fabaceae	Gokarn	Dicot	Climber
76	<i>Cocculus hirsutus</i> (L.) W. Theob.	Menispermaceae	Tanol	Dicot	Shrub
77	<i>Colocasia esculenta</i> (L.) Schott	Araceae	Alu	Monocot	Herb
78	<i>Combretum albidum</i> G. Don.	Combretaceae	Shendari	Dicot	Shrub
79	<i>Commelina benghalensis</i> L.	Commelinaceae	Kena	Monocot	Herb
80	<i>Commelina diffusa</i> Burm. F.	Commelinaceae	Gandologi	Monocot	Herb
81	<i>Corchorus aestuans</i> L	Malvaceae	-----	Dicot	Herb
82	<i>Cordia dichotoma</i> Forst.	Boraginaceae	Bokar	Dicot	Tree
83	<i>Crotalaria filipes</i> Benth	Fabaceae	Taag	Dicot	Herb
84	<i>Crotalaria juncea</i> L.	Fabaceae	Tag	Dicot	Herb
85	<i>Cryptolepis buchananii</i> R.Br.	Periplocaceae.	Bhutmali	Dicot	Climber
86	<i>Cucumis sativus</i> var. <i>hardwickii</i> (Royle) Alef.	Cucurbitaceae	-----	Dicot	Climber
87	<i>Curculigo orchiioides</i> Gaertn.	Hypoxidaceae	Kali Musali	Monocot	Herb
88	<i>Cyanthillium cinereum</i> (L.) H.Rob.	Asteraceae	-----	Dicot	Herb
89	<i>Cynarospermum asperrimum</i> (Nees.) Volesen	Acanthaceae	-----	Dicot	Herb
90	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	-----	Monocot	Herb
91	<i>Cyperus alulatus</i> Koen.	Cyperaceae	-----	Monocot	Herb
92	<i>Cyperus arenarius</i> Retz.	Cyperaceae	-----	Monocot	Herb
93	<i>Cyperus mindorensis</i> (Steud.) Huygh	Cyperaceae	-----	Monocot	Herb
94	<i>Dentella repens</i> (L.) J. And G. Forst.	Rubiaceae	-----	Dicot	Herb
95	<i>Desmodium scorpiurus</i> (Sw.) Poir.	Fabaceae	-----	Dicot	Herb
96	<i>Dioscorea bulbifera</i> L.	Dioscoreaceae	Kondfal	Monocot	Climber
97	<i>Dioscorea wallichii</i> Hook.f.	Dioscoreaceae	Chaivel	Monocot	Climber
98	<i>Diospyros melanoxylon</i> Roxb.	Ebenaceae	Tembhrun	Dicot	Tree
99	<i>Eclipta prostrata</i> (L.) L. Mant	Asteraceae	Maka	Dicot	Herb
100	<i>Eleocharis geniculata</i> (L.) Roem. & Schult.	Cyperaceae	-----	Monocot	Herb
101	<i>Eriocaulon minutum</i> Hook.	Eriocaulaceae		Monocot	Herb
102	<i>Eucalyptus globulus</i> Labill	Myrtaceae	Nilgiri	Dicot	Tree
103	<i>Euphorbia hirta</i> L.	Euphorbiaceae	-----	Dicot	Herb

104	<i>Euphorbia prostrata</i> Aiton	Euphorbiaceae	-----	Dicot	Herb
105	<i>Evolvulus alsinoides</i> (L.) L.	Convolvulaceae	Shankapushpi	Dicot	Herb
106	<i>Ficus benghalensis</i> L.	Moraceae	Wad	Dicot	Tree
107	<i>Ficus racemosa</i> L.	Moraceae	Umbar	Dicot	Tree
108	<i>Flacourtia indica</i> (Burm.f.)	Flacourtiaceae	Ghargugal	Dicot	Tree
109	<i>Flemingia tuberosa</i> Dalz.	Fabaceae	Virlee	Dicot	Herb
110	<i>Geissaspis cristata</i> Wight. and Arn	Fabaceae	-----	Dicot	Herb
111	<i>Gliricidia sepium</i> (Jacq.) Kunth	Fabaceae	Undirmari	Dicot	Tree
112	<i>Gloriosa superba</i> L.	Colchicaceae	Kalalaavi	Monocot	Herb
113	<i>Grangea maderaspatana</i> (L.) Desf	Asteraceae	-----	Dicot	Herb
114	<i>Grewia tiliifolia</i> Vahl. Symb.	Malvaceae	Dhaman	Dicot	Tree
115	<i>Grona triflora</i> (L.) H.Ohashi & K.Ohashi	Fabaceae	-----	Dicot	Herb
116	<i>Haldina cordifolia</i> (Roxb.) Ridsd.	Rubiaceae	Haldu	Dicot	Tree
117	<i>Helicteres isora</i> L.	Malvaceae	Murud shing	Dicot	Shrub
118	<i>Heliotropium indicum</i> L.	Boraginaceae	Bhuimundi	Dicot	Herb
119	<i>Heliotropium supinum</i> L	Boraginaceae	-----	Dicot	Herb
120	<i>Hemidesmus indicus</i> (L.) Sch.	Apocynaceae	Anantmul	Dicot	Climber
121	<i>Hibiscus cannabinus</i> (L.)	Malvaceae	Ambadi	Dicot	Herb
122	<i>Hibiscus rosa-sinensis</i> L.	Malvaceae	Jaswand	Dicot	Shrub
123	<i>Hibiscus sabdariffa</i> L.	Malvaceae	Lal ambadi	Dicot	Herb
124	<i>Holarrhena pubescens</i> (Buch-Ham.) Wall.	Apocynaceae	Pandhara kuda	Dicot	Tree
125	<i>Holoptelea integrifolia</i> (Roxb.) Planch.	Ulmaceae	Papada	Dicot	Tree
126	<i>Hydrilla verticillata</i> (L.f.) Royle	Hydrocharitaceae	Sheval, Pangavat	Monocot	Herb
127	<i>Hygrophila polysperma</i> (Roxb.) Ander.	Acanthaceae	Ikhara	Dicot	Herb
128	<i>Hygrophila ringens</i> (L.) Steud.	Acanthaceae	-----	Dicot	Herb
129	<i>Hygrophila schulli</i> (Buch. -Ham.) M. R and S.M Almeida	Acanthaceae	Ikhara	Dicot	Herb
130	<i>Impatiens balsamina</i> L.	Balsaminaceae	Terda	Dicot	Herb
131	<i>Impatiens minor</i> (DC.) Bennet.	Balsaminaceae	Terda	Dicot	Herb
132	<i>Indigofera astragalina</i> DC.	Fabaceae	Lahan Terda	Dicot	herb
133	<i>Indigofera cordifolia</i> Heyne ex Roth.	Fabaceae	-----	Dicot	Herb
134	<i>Ipomoea aquatica</i> Forssk.	Convolvulaceae	-----	Dicot	Climber
135	<i>Ipomoea carnea</i> Jacq. subsp. <i>fistulosa</i> (Matt exChoisy) Austin	Convolvulaceae	Besharam	Dicot	Shrub
136	<i>Ipomoea hederifolia</i> L.	Convolvulaceae	-----	Dicot	Climber
137	<i>Ipomoea quamoclit</i> L.	Convolvulaceae	Ganeshvel	Dicot	Climber
138	<i>Ipomoea triloba</i> L.	Convolvulaceae	-----	Dicot	Climber
139	<i>Ischaemum barbatum</i> Retz.,	Poaceae	-----	Monocot	Herb
140	<i>Jatropha curcas</i> L.	Euphorbiaceae	Mogali erand	Dicot	Shrub
141	<i>Justicia adhatoda</i> L.	Acanthaceae	Adulsa	Dicot	Shrub
142	<i>Lannea coromandelica</i> (Hoult.) Merr	Anacardiaceae	Modhal	Dicot	Tree
143	<i>Lantana camara</i> L.	Verbenaceae	Ghaneri	Dicot	Shrub
144	<i>Launaea procumbens</i> (Roxb.) Ramayya & Rajagopal	Asteraceae	-----	Dicot	Herb
145	<i>Leea macrophylla</i> Roxb. ex. Hornem	Leeaceae	Dinda	Dicot	Shrub
146	<i>Lemna minor</i> L.	Araceae	-----	Monocot	Herb
147	<i>Limnophila heterophylla</i> (Roxb.) Benth	Scrophulariaceae	-----	Dicot	Herb
148	<i>Limnophila indica</i> (L.) Druce.	Scrophulariaceae	-----	Dicot	Herb
149	<i>Lindernia crustacea</i> (L.) F. Muell.	Scrophulariaceae	-----	Dicot	Herb
150	<i>Lindernia parviflora</i> (Roxb.) Haines	Scrophulariaceae	-----	Dicot	Herb
151	<i>Lobelia alsinoides</i> Lam	Lobeliaceae	-----	Dicot	Herb
152	<i>Ludwigi aoctovalvis</i> subsp. <i>sessiliflora</i> (Micheli) P.H.Raven	Onagraceae	-----	Dicot	Herb

153	<i>Malachra capitata</i> (L.)	Malvaceae	Ran bhendi	Dicot	Herb
154	<i>Mallotus polycarpus</i> (Benth. & Hook.f.) Kulju & Welzen	Euphorbiaceae	Petari	Dicot	Tree
155	<i>Mangifera indica</i> L.	Anacardiaceae	Amba	Dicot	Tree
156	<i>Martynia annua</i> L.	Martyniaceae	Wagh Nakhi	Dicot	Herb
157	<i>Merremia gangetica</i> (L.) Cuford	Convolvulaceae	Undirkani	Dicot	Herb
158	<i>Mesosphaerum suaveolens</i> (L.) Kuntze	Lamiaceae	Ranjada	Dicot	Herb
159	<i>Miliusa tomentosa</i> (Roxb.) Finet & Gagnep.	Annonaceae	Humb	Dicot	Tree
160	<i>Mitragyna parviflora</i> (Roxb.) Korth.	Rubiaceae	Kalamb	Dicot	Tree
161	<i>Monochoria vaginalis</i> (Burm.f.) Pers.	Pontederiaceae	-----	Monocot	Herb
162	<i>Morinda pubescens</i> J. E., Sm.	Rubiaceae	Bhartondi	Dicot	Tree
163	<i>Mucuna pruriens</i> (L.) DC	Fabaceae	Kuilu	Dicot	Climber
164	<i>Mukia maderaspatana</i> (L.)	Cucurbitaceae	Gaygoyar	Dicot	Climber
165	<i>Nymphaea rubra</i> Roxb. ex-Andrews	Nymphaeaceae	-----	Dicot	Herb
166	<i>Nymphoides hydrophyllum</i> (Lour.) Kuntze	Menyanthaceae	-----	Dicot	Herb
167	<i>Nymphoides indica</i> (L.) Kuntze	Menyanthaceae	-----	Dicot	Herb
168	<i>Operculina turpethum</i> (L.) Manso	Convolvulaceae	Nishotar	Dicot	Climber
169	<i>Oroxylum indicum</i> (L.) Kurz	Bignoniaceae	Tetu	Dicot	Tree
170	<i>Ottelia alismoides</i> (L.) Pers.	Hydrocharitaceae	-----	Monocot	Herb
171	<i>Oxalis corniculata</i> L.	Oxalidaceae	Ambushi	Dicot	Herb
172	<i>Oxystelma esculentum</i> (L.f.) R.Br.	Apocynaceae	Dudhvel	Dicot	Herb
173	<i>Parasopubia delphiniifolia</i> (L.) H.-P.Hofm. & Eb.Fisch.	Orobanchaceae	-----	Dicot	Herb
174	<i>Paspalum scrobiculatum</i> L.	Poaceae	-----	Monocot	Herb
175	<i>Persicaria barbata</i> (L.) H.Hara	Polygonaceae	-----	Dicot	Herb
176	<i>Persicaria glabra</i> (Willd.) Gomez	Polygonaceae	-----	Dicot	Herb
177	<i>Phoenix sylvestris</i> (L.) Roxb.	Arecaceae	Shendi	Monocot	Tree
178	<i>Phyla nodiflora</i> (L.) Greene.	Verbenaceae	Adali	Dicot	Herb
179	<i>Phyllanthus amarus</i> Schum. and Thonn	Phyllanthaceae	Bhui awla	Dicot	Herb
180	<i>Phyllanthus virgatus</i> Forst.	Phyllanthaceae	Bhui awla	Dicot	Herb
181	<i>Physalis minima</i> L.	Solanaceae	Ranpopat	Dicot	Herb
182	<i>Pistia stratiotes</i> L.	Araceae	-----	Monocot	Herb
183	<i>Pithecellobium dulce</i> (Roxb.) Benth	Fabaceae	Vilayati chinch	Dicot	Tree
184	<i>Pogostemon benghalensis</i> (Burm.f.) O. Ktze	Lamiaceae	Pangulta	Dicot	Shrub
185	<i>Polygala arvensis</i> Willd.	Polygalaceae	-----	Dicot	Herb
186	<i>Polygonum plebeium</i> R. Br.	Polygonaceae	-----	Dicot	Herb
187	<i>Potamogeton alpinus</i> Balb.	Potamogetonaceae	-----	Monocot	Herb
188	<i>Potamogeton amplifolius</i> Tuck.	Potamogetonaceae	-----	Monocot	Herb
189	<i>Potamogeton distinctus</i> A.Benn.	Potamogetonaceae	-----	Monocot	Herb
190	<i>Pseudanthistiria heteroclita</i> (Roxb.) Hook.	Poaceae	-----	Monocot	Herb
191	<i>Pterocarpus marsupium</i> Roxb.	Fabaceae	Bivla	Dicot	Tree
192	<i>Radermachera xylocarpa</i> (Roxb.) Roxb. ex K.Schum.	Bignoniaceae	Kharsheng	Dicot	Tree
193	<i>Rhinacanthus nasutus</i> (L.) Kurz	Acanthaceae	-----	Dicot	Shrub
194	<i>Rhynchosyilis retusa</i> (L.) Bijdr	Orchidaceae	Sithechi veni	Monocot	Herb
195	<i>Rivea hypocrateriformis</i> (Desr.) Choisy	Convolvulaceae	Phanji	Dicot	Climber
196	<i>Rostellularia japonica</i> (Thunb.) Ellins	Acanthaceae	-----	Dicot	Herb
197	<i>Rungia repens</i> (L.) Nees	Acanthaceae	-----	Dicot	Herb
198	<i>Samanea saman</i> (Jacq.) Merr.	Fabaceae	-----	Dicot	Tree
199	<i>Schleichera oleosa</i> (Lour.)	Sapindaceae	Kosimb	Dicot	Tree
200	<i>Schoenoplectus articulatus</i> (L.) Lye	Cyperaceae	-----	Monocot	Herb
201	<i>Scoparia dulcis</i> L.	Scrophulariaceae	Bhuijaam	Dicot	Herb
202	<i>Senna alata</i> (L.) Roxb.	Fabaceae	-----	Dicot	Shrub
203	<i>Senna obtusifolia</i> (L.) H.S.Irwin & Barneby	Fabaceae	-----	Dicot	Herb

204	<i>Senna tora</i> (L.) Roxb.	Fabaceae	Tarota	Dicot	Herb
205	<i>Senna uniflora</i> (Mill.) H.S.Irwin & Barneby	Fabaceae	Takla	Dicot	Herb
206	<i>Sesamum orientale</i> L.	Pedaliaceae	Teel	Dicot	Herb
207	<i>Sesbania bispinosa</i> (Jacq.) W. Wight	Fabaceae	-----	Dicot	Shrub
208	<i>Sida acuta</i> Burm.	Malvaceae	Bala	Dicot	Herb
209	<i>Sida cordifolia</i> L.	Malvaceae	Bala	Dicot	Herb
210	<i>Sida rhombifolia</i> (L.)	Malvaceae	-----	Dicot	Herb
211	<i>Smithia conferta</i> J. E. Smith	Fabaceae	Kaula	Dicot	Herb
212	<i>Solanum xanthocarpum</i> Schrad.	Solanaceae	-----	Dicot	Herb
213	<i>Solena amplexicaulis</i> (Lam.) Gandhi	Cucurbitaceae	Gomethi	Dicot	Climber
214	<i>Spermacoce articularis</i> L. f. Suppl.	Rubiaceae	-----	Dicot	Herb
215	<i>Spermacoce pusilla</i> Wall.	Rubiaceae	-----	Dicot	Herb
216	<i>Sphaeranthus indicus</i> L.	Asteraceae	Gorakhamundi	Dicot	Herb
217	<i>Stemodia viscosa</i> Roxb.	Plantaginaceae	-----	Dicot	Herb
218	<i>Stephanotis volubilis</i> (L.f.) S.Reuss, Liede & Meve	Apocynaceae	Hirandodi	Dicot	Climber
219	<i>Sterculia urens</i> Roxb.	Malvaceae	Kahandol	Dicot	Tree
220	<i>Streblus asper</i> Lour.	Moraceae	Kharoti	Dicot	Tree
221	<i>Striga angustifolia</i> (D.Don) C.J.Saldanha	Orobanchaceae	-----	Dicot	Herb
222	<i>Striga asiatica</i> (L.) O. Ktze	Orobanchaceae	-----	Dicot	Herb
223	<i>Synedrella nodiflora</i> (L.) Gaertn	Asteraceae	-----	Dicot	Herb
224	<i>Tectona grandis</i> L.	Lamiaceae	Saag	Dicot	Tree
225	<i>Tephrosia purpurea</i> (L.) Pers	Fabaceae	Unhali	Dicot	Herb
226	<i>Teramnus labialis</i> (L.f.) Spreng	Fabaceae	-----	Dicot	Climber
227	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	Behada	Dicot	Tree
228	<i>Terminalia elliptica</i> Willd.	Combretaceae	Ain	Dicot	Tree
229	<i>Thespesia lampas</i> (Cav.)	Malvaceae	Ran bhendi	Dicot	Shrub
230	<i>Thespesia populnea</i> (L.) Soland.	Malvaceae	Jhar bhendi	Dicot	Tree
231	<i>Tinospora cordifolia</i> (Willd.) Miers. ex-Hook. f. and Thoms.	Menispermaceae	Gudvel	Dicot	Climber
232	<i>Trichodesma inaequale</i> Edgew.	Boraginaceae	Chota kalp	Dicot	Herb
233	<i>Tridax procumbens</i> L.	Asteraceae	Ekdandi	Dicot	Herb
234	<i>Triumfetta rhomboidea</i> Jacq. Enum.	Malvaceae	Thinjhira	Dicot	Herb
235	<i>Typha angustifolia</i> L.	Typhaceae	-----	Monocot	Herb
236	<i>Urena lobata</i> L.	Malvaceae	Laychi	Dicot	Herb
237	<i>Utricularia vulgaris</i> L.	Lentibulariaceae	-----	Dicot	Herb
238	<i>Vallisneria spiralis</i> L.	Hydrocharitaceae	-----	Monocot	Herb
239	<i>Vanda testacea</i> (Lindl.) Rehb.f.	Orchidaceae	-----	Monocot	Herb
240	<i>Ventilago maderaspatana</i> Gaertn.	Rhamnaceae	Tambatvel	Dicot	Climber
241	<i>Verbascum chinense</i> (L.) Santapau	Scrophulariaceae	-----	Dicot	Herb
242	<i>Vigna radiata</i> (L.) Wilczek	Fabaceae	Udad	Dicot	Herb
243	<i>Vitex negundo</i> L.	Lamiaceae	Nirgundi	Dicot	Shrub
244	<i>Wrightia tinctoria</i> R. Br.	Apocynaceae	Kala kuda	Dicot	Tree
245	<i>Xanthium indicum</i> Koen.	Asteraceae	Vinchu, Kateri	Dicot	Herb
246	<i>Ziziphus mauritiana</i> Lam.	Rhamnaceae	Bor	Dicot	Tree
247	<i>Ziziphus rugosa</i> Lam.	Rhamnaceae	Toran	Dicot	Shrub
248	<i>Zornia gibbosa</i> Span.	Fabaceae	-----	Dicot	Herb

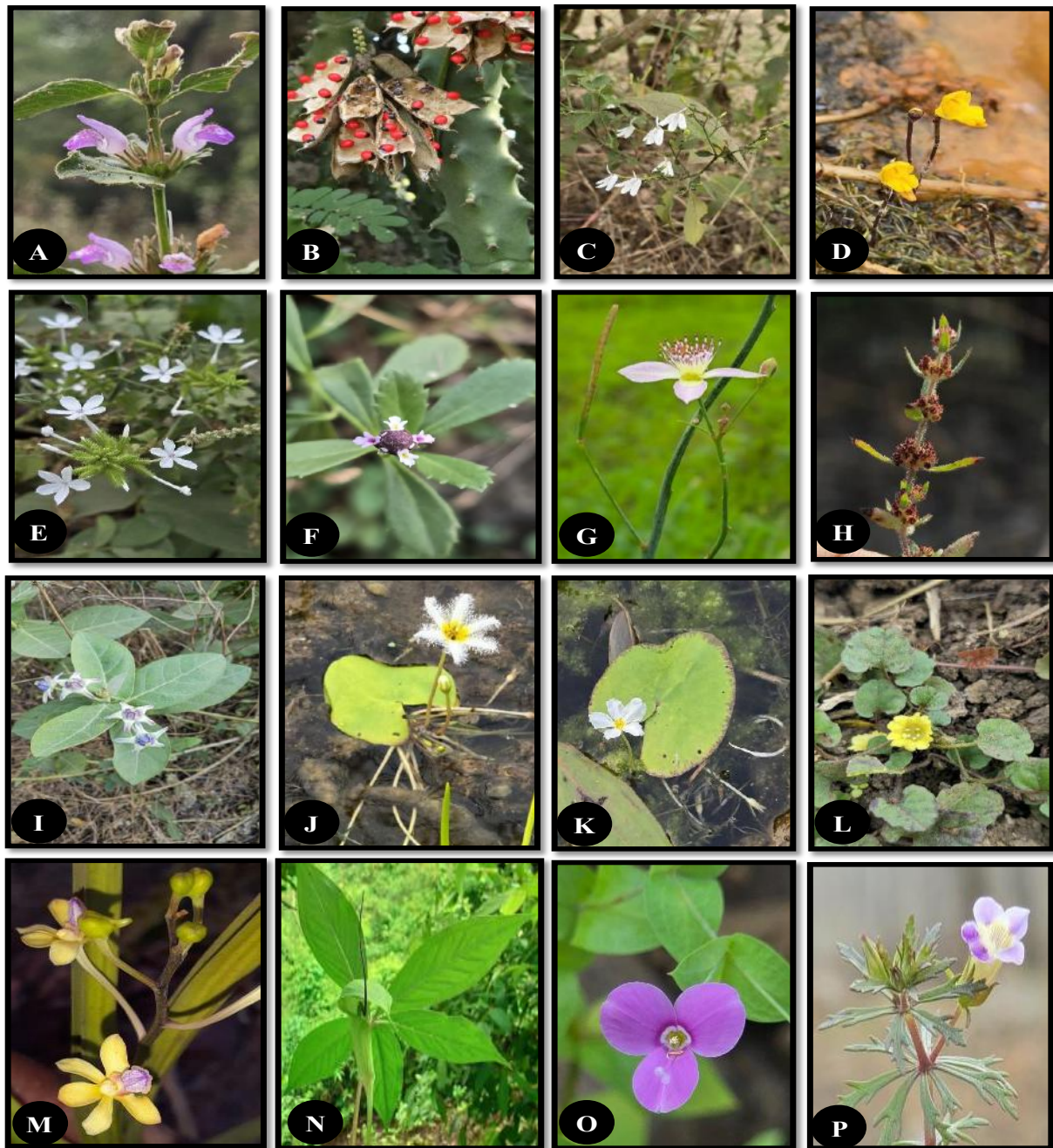


Fig. 6: **A.** *Hygrophila ringens* (L.) R.Br. ex Steud.; **B.** *Abrus precatorius* L. Syst. Nat; **C.** *Rhinacanthus nasutus* (L.) Kurz; **D.** *Utricularia vulgaris* L.; **E.** *Plumbago zeylanica* L.; **F.** *Phyla nodiflora* (L.) Greene.; **G.** *Cleome chelidonii* L.f.; **H.** *Bergia ammannioides* Roxb.; **I.** *Calotropis gigantea* (L.) R. Br; **J.** *Nymphoides indica* (L.) Kuntze; **K.** *Nymphoides hydrophylla* (Lour.) O. Ktze; **L.** *Merremia gangetica* (L.) Cuford; **M.** *Vanda testacea* (Lindl.) Rehb.f.; **N.** *Arisaema tortuosum* (Wall.) Schott.; **O.** *Canscora diffusa* (Vahl.) R. Br; **P.** *Limnophila indica* (L.) Druce

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