

# Plant diversity of tilasan forest at indo-bangladesh boarder of west bengal, india

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**ABSTRACT:** This floristic exploration provides the complete checklist of vascular plants of Tropical littoral-swamp natural forest of Maldah district of West Bengal, India. A total 224 species of angiosperms and 6 species of pteridophytes were enlisted. Families representing maximum number of species include Poaceae, Cyperaceae, Scrophulariaceae, Asteraceae, Euphorbiaceae and Solanaceae.

**Key words:** Tilasan, littoral and swamp forest, flora, *Barringtonia accutangula* (L) Gaertner, wetland.

## Introduction

The Tilasan hizal forest is a part of littoral and swamp forest located at Malda district of West Bengal (Anonymous, 2008). According to Champion and Seth (1964) this forest is referred as northern tropical deciduous forest, group-3, type-c. It is the only natural habitat of *Barringtonia accutangula* (L) Gaertner which is popularly known as hizal. This study area is under low land forest system and is located at the no-man's-land between Indo-Bangladesh borders. Floristically such small forest of this region is not explored. Presently this natural forest is conserving the forest department, Govt. West Bengal. But as it is located at no-man's-land areas, conservation technique is little bit hampered. Excessive cultivation, water lifting for irrigation from swamp forested wetland, use of chemical fertilizer gradually damages its natural habitat. The Hizal forest is located at the barind region of the district. This forest has a seasonal tropical climate with a temperature range from 21°C to 44°C and an average annual 1520 mm rainfall with a dry season from January to June. According to recent workers flora of Middle and North Bengal (Plains) forest areas are very rich and diversified (Prain, 1903; Hooker, (1872 – 1897); Acharyya, 1998 and Chowdhury & Das, 2009, 2010, 2011). Every strata of different small and large forest vegetation of North Bengal are floristically rich and have created the situation very much congenial for evolution (Pandit et al., 2004). North Bengal forests are very interesting for its different trees, shrubs, bamboos, woody climbs, palms and tree ferns (Cowan and Cowan, 1929). Total 150 sq Mile area between the river Tangan and Punarbhava of barind region was covered by dense scrubs of spiny shrubs and trees along with different aquatic flora (Hunter, 1872). This dense scrub of this area was floristically very rich and diversified (Curter, 1928; Pamberton, 1854). After 1961, with increasing of population in this region randomly destroy the forested areas and convert it for residential and agricultural land (Sengupta, 1969). Prain (1903) has conducted survey and provide a good number of floristic information from this part of Bengal. Acharyya (1998) prepared a list of total 70 species of weed species from the high and low laying paddy field of this district. Chowdhury and Das (2010) listed a total of 121 species in 76 genera and 41 families of hydrophytes from different wetlands of this district.

## Materials & Methods

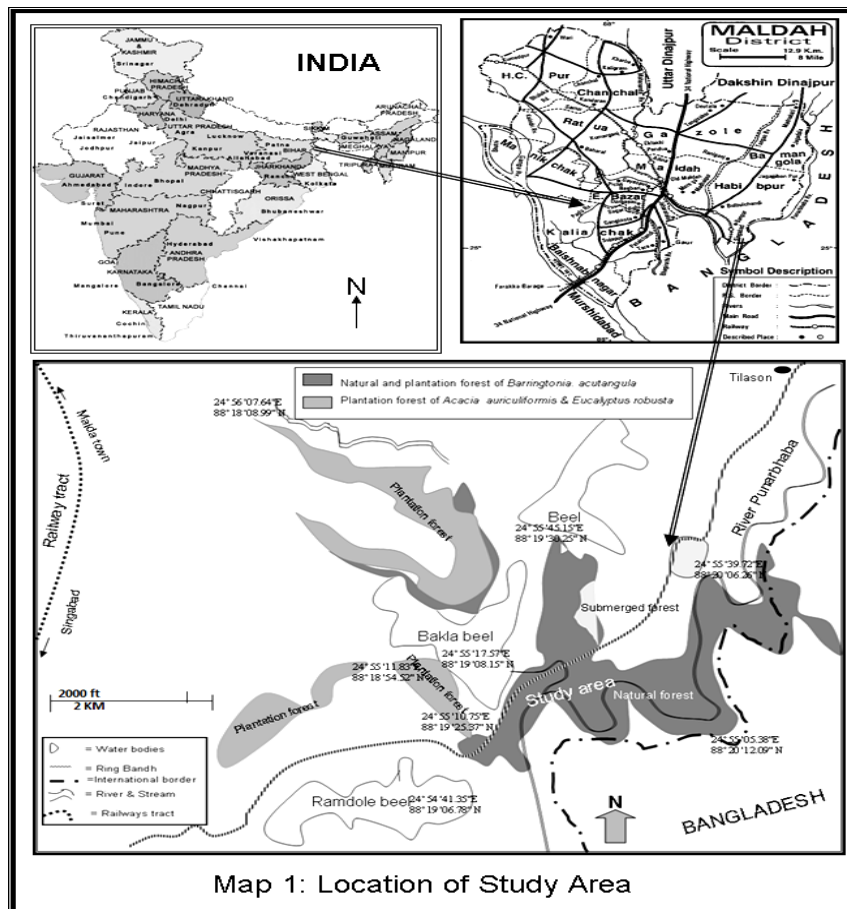
### Study Site

This forest is located in the western part at the Indo-Bangladesh border of Habibpur block of this district and is under the jurisdiction of Singabad range of Malda-Dinajpur forest division. This forest is around 47 km away from the district town of Malda towards the East-South corner and spread over on

approximately 110 hector areas with elevation 57 meter. It is a lowlying and associated with several palustrine wetlands (Beel). The wetlands Bakla and Chakla are situated on its west side whereas Ramdole is situated on its south and North-East side is marked by river Punarbhaba and Indo-Bangladesh boarder. During rainy season entire area forms a single water body. The Forest is longitudinally separated through a dam with fencing by Indian army (Map 1).

### Data collection

Extensive quantitative surveys were carried out during two years (2009 to 2010) to enumerate the vascular flora of this tropical littoral swamps forest (Table 1). The present work was preparing a list of angiosperms and pteridophytes from this area. Plants were collected from the forest as well as from adjoining wetlands (Beel) and cultivated areas and collected specimens were processed through the entire herbarium technique (Jain & Rao 1977). The mounted specimen was identified with the help of various regional floras (Prain 1903; Deb, 1957; Hara, 1966, 1971; Guha Bakshi, 1984; Grierson, A. J. C. & Long, D. G. 1987-1999; Cook, 1996) and confirmed it matching with CAL and BSHC existing herbarium specimens. Binomials, correct name and author citation part was carefully and thoroughly verified with IPNI (International Plant Name Index), Plant list and IK (Index Keiwenis). The collected voucher specimens with voucher number along with field report were preserved in the herbarium of North Bengal University, Darjeeling, West Bengal, India and a set of voucher specimens were deposited at CAL, Howrah.



Map 1: Location of Study Area

### Result And Discussion

In this survey a total of 224 species of vascular plants (Pteridophytes and Angiosperms) representing 165 genera belonging to 41 families have been recorded (Table 1). Of these 218 species of 159 genera representing 54 families are angiosperms and 6 species 6 genera representing 6 families are pteridophytes

(Figure 1). Among the recorded flora, the most represented families are Cyperaceae (6 Genera & 21 Species), Poaceae (29 Genera & 36 Species), Asteraceae (Genera 18 Species 23), Scrophulariaceae (5 Genera & 9 Species), Euphorbiaceae (Genera 7 Species 11), Fabaceae (5 Genera & 7 Species) and Solanaceae (4 Genera & 7 Species). This forest is maintaining ideal habitat *Barringtonia accutangula* (L) Gaertner with high population and this natural vegetation is surrounding by rice field.

Table 1. Vascular plants of Hizal forest of Maldah district.

Vascular plants	Tag No.	Habit	Uses
Acanthaceae			
<i>Hygrophila auriculata</i> (Sch.) Heine	MC 1036	Herb	Medicinal
<i>Hygrophila polysperma</i> (Roxb.) Anderson	MC 1037	Herb	-
<i>Justicia diffusa</i> Willdenow	MC 1038	Herb	-
<i>Justicia simplex</i> D. Don	MC 1039	Herb	-
<i>Nelsonia canescens</i> (Lamarck) Sprengel	MC 1040	Herb	-
<i>Rungia pectinata</i> (L.) Nees	MC 1041	Herb	-
Amaranthaceae			
<i>Alternanthera paronychioides</i> St. Hill	MC 1042	Herb	-
<i>Alternanthera sessilis</i> (L.) R. Brown. ex DC.	MC 1043	Herb	Edible
<i>Amaranthus spinosus</i> L.	MC 1044	Herb	Edible
<i>Amaranthus viridis</i> L.	MC 1045	Herb	Edible
Apiaceae			
<i>Centella asiatica</i> (L.) Urban	MC 1046	Herb	Medicinal
<i>Oenanthe javanica</i> L.	MC 1047	Herb	-
<i>Seseli diffusum</i> (Roxburgh ex Smith) Sant. & Wang	MC 1048	Herb	-
Apocyanaceae			
<i>Ichnocarpus fruetance</i> (L.) Aiton	MC 1049	Vine	-
Aponogetonaceae			
<i>Aponogeton crispum</i> Thunberg	MC 1050	Herb	-
Araceae			
<i>Colocasia esculenta</i> (L.) Schott	MC 1051	Herb	Edible
<i>Colocasia nymphaefolia</i> Kunth	MC 1052	Herb	Edible
<i>Pistea stratiotes</i> L.	MC 1053	Herb	Manure
Apocyanaceae			
<i>Pergularia daemia</i> (Forsskal) Chio.	MC 1413	Vine	Medicinal
<i>Calotropis gigantea</i> (L.) Dryander	MC 2016	Shrub	Medicinal
Asteraceae			
<i>Ageratum conyzoides</i> L.	MC 1054	Herb	-
<i>Blumea hieraciifolia</i> (D. Don) DC.	MC 1056	Herb	-
<i>Blumea lacera</i> (Burman f.) DC.	MC 1057	Herb	-
<i>Caesulia axillaris</i> Roxb.	MC 1058	Herb	-
<i>Centipeda minima</i> (L.) A. Brown & Ascherson	MC 1059	Herb	-
<i>Cortula anthemoides</i> L.	MC 1060	Herb	-
<i>Cortula hemisphaerica</i> (Roxb.) Bentham & Hook. f.	MC 1061	Herb	-
<i>Eclipta alba</i> (L.) Hassk.	MC 1111	Herb	Medicinal
<i>Elephantopus scaber</i> L.	MC 1063	Herb	-
<i>Emilia sonchifolia</i> (L.) DC.	MC 1064	Herb	-
<i>Enydra fluctuans</i> Lour.	MC 1065	Herb	Medicinal
<i>Gnaphalium purpureum</i> L.	MC 1067	Herb	-
<i>Gnaphalium luteo-album</i> ssp affine (D. Don.) Koster	MC 1068	Herb	-
<i>Gnaphalium luteo-album</i> ssp luteo-album L.	MC 1069	Herb	-
<i>Gnaphalium polycaulon</i> Persoon	MC 1070	Herb	-
<i>Grangea maderaspatana</i> (L.) Poir.	MC 1071	Herb	-
<i>Launaea aspleniifolia</i> (Willdenow) Hook. f.	MC 1072	Herb	-
<i>Parthenium hysterophorus</i> L.	MC 1074	Herb	-
<i>Spilanthes calva</i> DC.	MC 1132	Herb	-
<i>Vernonia cinerea</i> (L.) Less.	MC 1129	Herb	-
<i>Eupatorium odoratum</i> L.	MC 1066	Shrub	-
<i>Xanthium indicum</i> Koen. ex Roxburgh	MC 1076	Shrub	-
<i>Mikania micrantha</i> Kunth in Humboldt, Bonpland & Kunth	MC 1073	Vine	-
Boraginaceae			
<i>Coldenia procumbens</i> L.	MC 1077	Herb	-
<i>Cyanoglossum lanceolatum</i> Forsskal	MC 1078	Herb	-
<i>Heliotropium indicum</i> L.	MC 1079	Herb	-

<i>Heliotropium ovalifolium</i> Forsskal	MC 1080	Herb	-
Caryophyllaceae			
<i>Stellaria wallichiana</i> Benth. ex Haines	MC 1081	Herb	-
Cesalpiniaceae			
<i>Cassia tora</i> L.	MC 1082	Shrub	-
<i>Cassia occidentalis</i> L.	MC 2012	Shrub	-
Chenopodiaceae			
<i>Chenopodium album</i> L.	MC 2011	Herb	Edible
Cleomaceae			
<i>Cleome viscosa</i> L.	MC 1083	Shrub	-
Commelinaceae			
<i>Commelina benghalensis</i> L.	MC 1084	Herb	-
<i>Commelina diffusa</i> Burm.f.	MC 1085	Herb	-
<i>Murdannia nudiflora</i> (L.) Brenan	MC 1087	Herb	-
<i>Tonningia axillaris</i> (L.) Kuntz	MC 1086	Herb	-
Convolvulaceae			
<i>Evolvulus nummularius</i> (L.) L.	MC 1088	Herb	-
<i>Ipomoea aquatica</i> Forsskal	MC 1212	Herb	-
<i>Ipomoea carnea</i> ssp. <i>fistulosa</i> (Choisy) D. Austin	MC 1090	Shrub	-
<i>Hewittia scandens</i> (Milne) Mabberley	MC 1091	Vine	-
<i>Merremia hederaceae</i> (Burman f.) Hallier f.	MC 1092	Vine	-
<i>Merremia</i> sp	MC 1093	Vine	-
Cucurbitaceae			
<i>Coccinia grandis</i> (L.) Voigt	MC 2013	Vine	Medicinal
<i>Trichosanthes cucumerina</i> L.	MC 1414	Vine	Edible
Cuscutaceae			
<i>Cuscutta reflexa</i> Roxburgh	MC 1411	Vine	-
Cyperaceae			
<i>Bulbostylis densa</i> (Wallich) Handle-Mazzetti ex Karsten & Schenck	MC 1102	Sedge	-
<i>Cyperus difformis</i> L.	MC 1228	Sedge	-
<i>Cyperus digitatus</i> Roxburgh	MC 1106	Sedge	-
<i>Cyperus flavidus</i> Retzius	MC 1113	Sedge	-
<i>Cyperus halpan</i> L.	MC 1110	Sedge	-
<i>Cyperus iria</i> L.	MC 1111	Sedge	-
<i>Cyperus niveus</i> Retzius	MC 1112	Sedge	-
<i>Cyperus pilosus</i> Vahl	MC 1109	Sedge	-
<i>Cyperus rotundus</i> L.	MC 1107	Sedge	-
<i>Cyperus tenuispica</i> Steud.	MC 1114	Sedge	-
<i>Eleocharis congesta</i> D. Don	MC 1096	Sedge	-
<i>Eleocharis palustris</i> R. Brown	MC 1097	Sedge	-
<i>Fimbristylis aestivalis</i> (Retzius) Vahl,	MC 1098	Sedge	-
<i>Fimbristylis littoralis</i> Gaudich	MC 1099	Sedge	-
<i>Fimbristylis squarrosa</i> Vahl	MC 1100	Sedge	-
<i>Fimbristylis tenera</i> Schultes	MC 1101	Sedge	-
<i>Kyllinga brevifolia</i> Rottboell	MC 1094	Sedge	-
<i>Kyllinga nemoralis</i> (Forster) Dandy ex Hutchinson	MC 1095	Sedge	-
<i>Schoenoplectus articulatus</i> (L.) Palla	MC 1103	Sedge	-
<i>Schoenoplectus juncooides</i> (Roxburgh) palla	MC 1104	Sedge	-
<i>Schoenoplectus supinus</i> (L.) Palla	MC 1105	Sedge	-
Elatinaceae			
<i>Bergia ammannioides</i> Roxburgh	MC 1115	Herb	-
Euphorbiaceae			
<i>Croton bonplandianus</i> Baillon	MC 1158	Herb	Medicinal
<i>Euphorbia heyneana</i> Speng.	MC 1119	Herb	-
<i>Euphorbia hirta</i> L.	MC 1120	Herb	-
<i>Euphorbia indica</i> Lamark	MC 1118	Herb	-
<i>Phyllanthus fraternus</i> Webster	MC 1122	Herb	Medicinal
<i>Phyllanthus urinaria</i> L.	MC 1121	Herb	Medicinal
<i>Phyllanthus virgatus</i> Frost.	MC 1123	Herb	-
<i>Chrozophora rottleri</i> (Geiseler) Juss. ex spreng.	MC 1116	Shrub	-
<i>Jatropha gossypifolia</i> L.	MC 1117	Shrub	Medicinal
<i>Sauropus quadriangularis</i> (Willdenow) Mueller	MC 1125	Shrub	-
<i>Tragia hispida</i> Willdenow	MC 1416	Vine	-
Fabaceae			

<i>Alysicarpus bupleurifolius</i> (L.) DC.	MC 1127	Herb	-
<i>Alysicarpus vaginalis</i> (L.) DC.	MC 1128	Herb	-
<i>Desmodium triangulare</i> (Retz.) Merrill	MC 1131	Herb	-
<i>Desmodium triflorum</i> (L.)DC.	MC 1129	Herb	-
<i>Medicago lupulina</i> L.	MC 1130	Herb	-
<i>Dalbergia sissoo</i> DC.	MC 1140	Tree	-
<i>Aeschynomene aspera</i> L.	MC 1126	Shrub	-
Fumariaceae			
<i>Fumaria indica</i> (Haussk.) Pugsley	MC 1132	Herb	-
Hydrophyllaceae			
<i>Hydrolea zeylanica</i> (L.) Vahl	MC 1133	Herb	-
Hypericaceae			
<i>Hypericum japonicum</i> Thunberg ex Murray	MC 1134	Herb	-
Lamiaceae			
<i>Leonurus sibiricus</i> L.	MC 1137	Herb	-
<i>Leucas indica</i> (L.) R. Brown ex Vatke	MC 1138	Herb	Medicinal
<i>Ocimum basilicum</i> L.	MC 1136	Herb	Medicinal
<i>Anisomeles indica</i> L.	MC 1135	Shrub	Medicinal
Lecythidaceae			
<i>Barringtonia acutangula</i> (L.) Gaertn.	MC 1139	Tree	-
Lemnaceae			
<i>Lemna perpusilla</i> Torrey	MC 1141	Herb	-
<i>Spirodela polyrrhiza</i> (L.) B. Schultz	MC 1247	Herb	-
Lythraceae			
<i>Ammannia baccifera</i> L.	MC 1143	Herb	-
<i>Nesaea brevipes</i> Kiehne	MC 1144	Herb	-
<i>Rotala densiflora</i> (Roth) Koehne	MC 1145	Herb	-
Malvaceae			
<i>Sida acuta</i> Burman f.	MC 1146	Herb	-
<i>Sida cordifolia</i> L.	MC 1147	Herb	-
<i>Abutilon indicum</i> (L.) Sweet	MC 1148	Shrub	Medicinal
<i>Urena lobata</i> L.	MC 1405	Shrub	Medicinal
Menispermaceae			
<i>Cissampelos pareira</i> L. <i>hirsuta</i> (Buch.-Ham. ex DC) Forman	MC 1150	Vine	-
<i>Stephania japonica</i> (Thunburgh) Miers	MC 1403	Vine	Medicinal
<i>Tinospora cordifolia</i> (Willd.) Hooker f. & Thomson	MC 2015	Vine	Medicinal
<i>Tinospora sinensis</i> (Loureiro) Merrill	MC 2015	Vine	Medicinal
Menyanthaceae			
<i>Nymphoides hydrophylla</i> (Loureiro) Kuntze	MC 1151	Herb	-
Mimosaceae			
<i>Mimosa pudica</i> L.	MC 1178	Herb	Medicinal
<i>Acacia auriculoformis</i> A. Cunningham. ex Bentham	MC 1154	Tree	-
<i>Acacia nilotica</i> (L.). Willdenow ex Dellie ssp. <i>cupressiformis</i> (J. L. Stewart) Ali	MC 1153	Tree	-
Molluginaceae			
<i>Glinus lotoides</i> L.	MC 1157	Herb	-
<i>Glinus oppositifolius</i> (L.) A. DC.	MC 1156	Herb	Edible
<i>Mollugo pentaphylla</i> L.	MC 1155	Herb	-
Moraceae			
<i>Sreblus asper</i> Loureiro		Shrub	-
<i>Ficus heterophylla</i> L. f.	MC 1158	Shrub	-
Myrtaceae			
<i>Eucalyptus robusta</i> Smith	MC 1239	Tree	-
Onagraceae			
<i>Ludwigia adscendens</i> (L.) Hara	MC 1159	Herb	-
<i>Ludwigia perennis</i> L.	MC 1161	Herb	-
<i>Ludwigia octavalvis</i> ssp. <i>sessiliflora</i> (Micheli) Raven	MC 1160	Shrub	-
Oxalidaceae			
<i>Biophytum sensitivum</i> (L.) DC.	MC 1162	Herb	-
<i>Oxalis corniculata</i> L.	MC 1163	Herb	Edible
Papaveraceae			
<i>Argemone mexicana</i> L.	MC 1240	Herb	Edible
Poaceae			
<i>Axonopus compressus</i> (Sw.) Pal.-Beauvois	MC 1168	Graminoid	-
<i>Brachiaria distachya</i> (L.) Stapf	MC 1169	Graminoid	-

<i>Brachiaria reptans</i> (L.) Gardner & Hubb	MC 1170	Graminoid	-
<i>Chloris inflata</i> Link	MC 1195	Graminoid	-
<i>Cryptococcum accrescens</i> (Trinius) Stapf	MC 1165	Graminoid	-
<i>Cymbopogon pendulus</i> Stapf	MC 1194	Graminoid	-
<i>Cynodon dactylon</i> (L.) Persoon	MC 1173	Graminoid	-
<i>Dactyloctenium aegyptium</i> (L.) Willdenow	MC 1174	Graminoid	-
<i>Desmostachya bipinnata</i> (L.) Stapf	MC 1166	Graminoid	-
<i>Dichanthium annulatum</i> (Forsk.) Stapf	MC 1200	Graminoid	-
<i>Digitaria bicornis</i> (Lamarck) Roemer & Schultes	MC 1175	Graminoid	-
<i>Digitaria ciliaris</i> (Retzius) Koeler	MC 1176	Graminoid	-
<i>Diplachne fusca</i> (L.) P. Beauvois	MC 1281	Graminoid	-
<i>Echinochloa colona</i> (L.) Link	MC 1178	Graminoid	-
<i>Echinochloa crus-galli</i> (L.) Beauverd	MC 1179	Graminoid	-
<i>Eleusine indica</i> (L.) Gaertner	MC 1180	Graminoid	-
<i>Eragrostis gangetica</i> (Roxburgh) Steudel	MC 1183	Graminoid	-
<i>Eragrostis pilosa</i> (L.) P. Beauvois	MC 1184	Graminoid	-
<i>Eragrostis tenella</i> (L.) Beauverd ex Roemer et Schultes	MC 1181	Graminoid	-
<i>Eragrostis unioloides</i> (Retzius) Nees ex Steudel	MC 1182	Graminoid	-
<i>Imperata cylindrica</i> (L.) Raeuschel	MC 1185	Graminoid	-
<i>Leptochloa panicea</i> (Retzius) Ohwi	MC 1167	Graminoid	-
<i>Oplismenus burmannii</i> (Retzius) Pal.-Beauvois	MC 1186	Graminoid	-
<i>Oryza sativa</i> Linnaeus	MC 1199	Graminoid	-
<i>Panicum repens</i> L.	MC 1171	Graminoid	-
<i>Pannisetum polystachyon</i> (L.) Schultes	MC 1172	Graminoid	-
<i>Paspalidium flavidum</i> (Retzius) A. Camus	MC 1191	Graminoid	-
<i>Paspalum distichum</i> L.	MC 1188	Graminoid	-
<i>Paspalum scrobiculatum</i> L.	MC 1187	Graminoid	-
<i>Phragmites karki</i> Trinius ex Steudel	MC 1193	Graminoid	-
<i>Rottboellia cochinchinensis</i> (Loureiro) W.D. Clayton	MC 1391	Graminoid	-
<i>Saccharum spontaneum</i> L.	MC 1192	Graminoid	-
<i>Sacciolepis interrupta</i> (Willdenow) Stapf	MC 1190	Graminoid	-
<i>Sataria glauca</i> (L.) P. Beauvois	MC 1196	Graminoid	-
<i>Sporobolus diander</i> (Retzius) P. Beauvois	MC 1197	Graminoid	-
<i>Vetiveria zizanioides</i> (L.) Nash in Small	MC 1198	Graminoid	-
Polygonaceae			
<i>Persicaria barbata</i> (L.) Hara ssp. <i>Stagnina</i> (Buch-Ham. ex Meisn) Sojak	MC 1202	Herb	-
<i>Persicaria hydropiper</i> L.	MC 1288	Herb	-
<i>Polygonum plebeium</i> R. Brown	MC 1203	Herb	-
<i>Rumex dentatus</i> L.	MC 1204	Herb	-
Pontederiaceae			
<i>Eichhornia crassipes</i> (Martius) Solms	MC 1205	Herb	Manure
<i>Monochoria vaginalis</i> Kunth	MC 1207	Herb	Manure
Primulaceae			
<i>Anagallis arvensis</i> L.	MC 1208	Herb	-
Ranunculaceae			
<i>Ranunculus sceleratus</i> L.	MC 1321	Herb	-
Rhamnaceae			
<i>Ziziphus mauritiana</i> Lamarck	MC 1149	Tree	-
Rosaceae			
<i>Rosa clinophylla</i> Thory var. <i>glabra</i> S.C. Ghora & G. Panigrahi	MC 1210	Shrub	-
Rubiaceae			
<i>Dentella repens</i> (L.) Forsst.	MC 1211	Herb	-
<i>Hedyotis corymbosa</i> (L.) Lamarck	MC 1212	Herb	-
<i>Hedyotis diffusa</i> Willdenow	MC 1213	Herb	-
<i>Neolamarckia cadamba</i> (Roxburgh) Bosser	MC 1214	Tree	-
Sapotaceae			
<i>Cardiospermum halicacabum</i> L.	MC 1232	Vine	-
Scrophulariaceae			
<i>Bacopa monnieri</i> (L.) Pennell	MC 1215	Herb	Medicinal
<i>Lindernia antipoda</i> (L.) Alston	MC 1216	Herb	-
<i>Lindernia ciliata</i> (Colsm.) Pennell	MC 1217	Herb	-
<i>Lindernia crustacea</i> (L.) F. Mueller	MC 1218	Herb	-
<i>Lindernia parviflora</i> (Roxburgh) Haines	MC 1219	Herb	-
<i>Lindernia pusilla</i> (Willd.) Boldingh	MC 1377	Herb	-

<i>Mecardonia procumbens</i> (Miller) Small	MC 1221	Herb	-
<i>Microcarpaea minima</i> (J. Konig ex Retzius) Merrill	MC 1222	Herb	-
<i>Scoparia dulcis</i> L.	MC 1223	Herb	Medicinal
Solanaceae			
<i>Datura stramonium</i> L.	MC 1224	Herb	Medicinal
<i>Nicotiana plumbaginifolia</i> Viviani	MC 1225	Herb	-
<i>Physalis minima</i> L.	MC 1226	Herb	Edible
<i>Solanum nigrum</i> L.	MC 1227	Herb	-
<i>Solanum sisymbriifolium</i> Lamark	MC 1229	Herb	-
<i>Solanum surattense</i> Burman. f.	MC 1230	Herb	-
<i>Solanum torvum</i> Swartz	MC 1228	Herb	Medicinal
Sterculiaceae			
<i>Melochia corchorifolia</i> L.	MC 1331	Herb	-
Tiliaceae			
<i>Triumfetta rhomboidea</i> Jacquin	MC 1233	Herb	-
Urticaceae			
<i>Pouzolzia hirta</i> (Blume) Hasskarl	MC 1234	Herb	-
<i>Pouzolzia zeylanica</i> (L.) Bennett	MC 1235	Herb	-
Verbenaceae			
<i>Phyla nudiflora</i> (L.) Greene	MC 1238	Herb	-
<i>Clerodendrum viscosum</i> Ventenat	MC 1237	Shrub	-
<i>Lippia javanica</i> (Burman f.) Spreng	MC 1236	Shrub	-
Vitaceae			
<i>Caryatia trifolia</i> (L.) Domin	MC 1417	Vine	-
Athyriaceae			
<i>Diplazium esculentum</i> (Retzius)	MC 1503	Fern	Edible
Azollaceae			
<i>Azolla pinnata</i> R. Brown	MC 1419	Fern	Manure
Lygodiaceae			
<i>Lygodium flexusum</i> (L.) Swartz	MC 1505	Fern	-
Marsileaceae			
<i>Marsilea minuta</i> Linnaeus	MC 1506	Fern	Edible
Parkeriaceae			
<i>Ceratopteris thalictroides</i> (Linnaeus) Brongniart	MC 1508	Fern	Edible
Salviniaceae			
<i>Salvinia natans</i> (Linnaeus) Allioni	MC 1507	Fern	Manure

The population of *Rosa clinophylla* Thory var. *glabra* S.C. Ghora & G. Panigrahi with beautiful white flowers is quite good and grown along with *Barringtonia accutangula* (L) Gaertner (Chowdhury & Das, 2011). The forest is dominating by the most frequent species like *Imperata cylindrica* (L.) Raeuschel, *Phragmites karki* Trin.ex Steud., *Saccharum spontaneum* L., *Vetiveria zizanioides* (L.) Nash in Small, *Eichhornia crassipes* (Mart.)Solms, *Cardiospermum halicacabum* L., *Lippia javanica* (Burman f.) Spreng, *Caryatia trifolia* (L.) Domin, *Alternanthera sessilis* (L.) R.Br. ex DC., *Ichnocarpus fruetance* (L.) Aiton, *Mikania micrantha* Kunth in Humboldt, *Bonpland & Kunth*, *Merremia hederaceae* (Burman f.) Hallier f., *Urena lobata* L., *Cissampelos pareira* L. *hirsuta* (Buch.-Ham. ex DC) Forman, *Mollugo pentaphylla* L. etc.

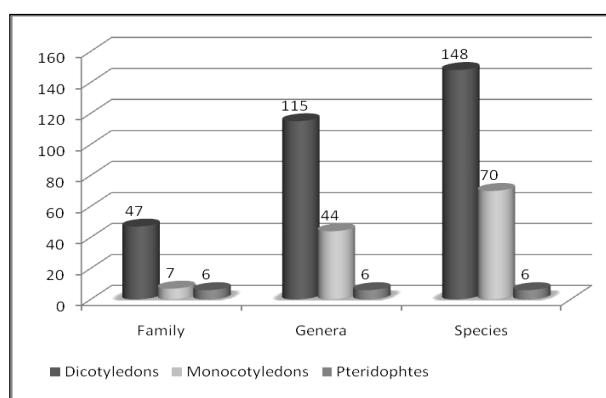


Figure 1. Distribution of floral composition

The forest is surrounded by villages riching with tribal communities including santals, oraon and mundas. They people using different plants species as medicine to cure various diseases. They generally Collecting those medicinal plants from this forest and some of these species are Hygrophila auriculata (Sch.) Heine, Datura stramonium L., Abutilon indicum (L.) Sweet, Stephania japonica (Thunburgh) Miers, Tinospora cordifolia (Willd.) Hooker f. & Thomson, Acacia nilotica (L.) Willdenow ex Dellie ssp. cupressiformis (J. L. Stewart) Ali, Clerodendrum viscosum Ventenat, Alternanthera sessilis (L.) R. Brown ex DC., Pergularia daemia (Forsskal) Chio., Bacopa monnieri (L.) Pennell, Centella asiatica(L.) Urban, Calotropis gigantia (L.) Dryander, Eclipta alba (L.) Hassk., Enydra fluctuens Loureiro, Nymphaea pubescens Willdenow, Glinus oppositifolius (L.)A. DC., Hygrophila auriculata (Schumacher) Heine, Leucas indica (L.) R. Brown ex Vatke etc.

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