



# Inventorization of Vascular plant diversity in Amchang Wildlife Sanctuary, Kamrup Metro District, Assam

## KEYWORDS

Vascular plant, Diversity, Amchang Wildlife Sanctuary

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**ABSTRACT** The present investigation deals with the composition of vascular plants in the Amchang Wildlife Sanctuary, Assam. A total of 301 vascular plant species under 234 genera and 106 families including Pteridophytes 35 species, Gymnosperm 01 species and Angiosperm 265 species were recorded from the sanctuary during the survey period. Angiosperm included trees (82), shrubs (19), herbs (96), climber (35), lianas (9), epiphytes (6), grass (9), bamboo (6) and palm (2) and stem parasite (1). Uses of the plants recorded under the study belong to category of timber (44), vegetable (47), medicinal (56), edible fruit (12), ornamental (46), fodder (32), broom (2) and miscellaneous uses (62).

**INTRODUCTION**

Protected areas are considered most effective tools for protecting species from extinction and from the impact of human induced threats. These areas help to conserve ecosystems that provide habitat, shelter, food, fodder, source of Non-Timber Forest Products (NTFPs), helps in recharging ground water, offer scope for pollination of commercially valuable crops, act as carbon sink, helps in soil stabilization etc. (Noss, 1992).

Assam has an geographical area of 78,433 sq. km, lying in between 24°44' N to 27°45'N latitude and 89°41' and 96°02' E longitudes. The state is surrounded by hills and mountains on the north, east and the south side. To the west, it merges with the West Bengal and Bangladesh plains. The state has the Brahmaputra valley in the northern part bordering to Arunachal Pradesh and the Barak valley in the southern part bordering to Mizoram, Tripura and Meghalaya. The state is enriching with 4273 species of vascular plants comprising of 1448 genera distributed in 272 families. This represents about 25.12% of the total vascular flora of India (Chowdhury 2005).

Amchang Wildlife Sanctuary was established vide government notification (order no. FRW.11/224/25), on 19-06-2004. Amchang Wildlife Sanctuary is an amalgamation of the three erstwhile Reserve Forests (RF)- Amchang RF (53.18 sq.km), South Amchang RF (15.50 sq.km) and Khanapara RF (9.96 sq.km) and lies between 26°13'E - 26°09'E and 91°50'N-91°59'N. Sanctuary is a home to diverse fauna including 44 species of mammals and over 250 species of birds. Survey carried out by a research team recorded the presence of a total of 38 species of mammals, 15 species of amphibians, 52 species of reptiles and 76 species of butterflies in the sanctuary (Sharma et al, 2011). The vegetation in the sanctuary is predominantly semi-evergreen and moist deciduous type with secondary growth of *Shorea robusta*, *Tectona grandis*, *Bambus spp*, *Musa spp*, *Calamus spp*, etc.

Several publications came out on assessment of plant di-

versity and on useful plants in protected areas of Assam. Some of them are Jain & Hajra (1975) on the plant diversity of Manas Wildlife Sanctuary; Dutta, et al., (1974) on forest flora of North Cachar Hills and Boral Range; Kar & Borthakur (2008) on Flora of Umananda Island of Brahmaputra River; Baruah & Baruah (2000) on hydrophytes of Kaziranga National Park; Baruah & Baruah (2007) on vegetation characteristics of grassland of Kaziranga National Park ; Baruah et al., (2003) on biodiversity status in Manas Biosphere reserve; Bharali & Borua (2003) on diversity of orchid flora of Dibrugarh district; Gogoi et al., (2009) on orchid flora of Joypur Reserve Forest of Dibrugarh district; Dey et al., (2007) on Orchid diversity in Manas National Park, Assam; Pegu et al., (2013) on ethnobotanical study of Wild Edible Plants in Poba Reserved Forest; Purkayastha et al., (2007) on ethno medicinal plants from Dibrugarh district; Bujarbarua & Sarma (2006) on the diversity of family Poaceae in Gibbon Wildlife Sanctuary, Assam. So far Amchang wildlife Sanctuary is concern, no published literature is available on vascular plant diversity of Amchang Wildlife Sanctuary and no attempt has been made to explore the sanctuary for inventorization of vascular plants. However, the preliminary documentation of the floral and faunal diversity by forest officials prior to declaration of the three-reserved forest as sanctuary was done sporadically. Therefore, present investigations were carried out with the objectives a. inventorization of vascular plant diversity of Amchang wildlife Sanctuary and b. to find out useful plants of the sanctuary.

**MATERIALS AND METHODS**

Amchang Wildlife Sanctuary, with an area of 78.64 sq km is located in Kamrup Metro district of Assam and lies between 26°13'E - 26°09'E and 91°50'N - 91°59'N and altitudinal ranges are 60.42 m to 312.15 m (plate 1).

Detailed surveys of the vascular plants of Amchang Wildlife Sanctuary were conducted from 2009 to 2012 covering wild species (plate 2 and plate 3). Surveys were conducted from twelve sites (direction) of the sanctuary viz., Panikhaiti, Hatisila, Lahapara, Bonda, Hajongbari, Thakurkuchi, Panbari, Botaghuli, Jorabat, Tepesia, Kamarkuchi, and Khanapara. Transect method of Burnham et al., 2003 was followed depending upon the habitat and forest condition. Transects were laid in a stratified random manner to cover all the representative areas of the sanctuary. The information regarding the usefulness of the recorded plants was collected from primary (forest personal, fringe villagers, herbal healer etc.) as well as secondary sources (Chowdhury, 2005; Kar & Borthakur 2007a, 2007b, 2007c; Kar et al., 2007; Kar & Borthakur 2008a, 2008b, 2008c; Kar 2009; Kar et al., 2011a, Kar et al., 2011b; Kar et al., 2012; Bhutani, 2009). The collected specimens were processed into mounted herbarium specimen following standard herbarium techniques (Jain & Rao 1977). Identification of the specimens was done by comparing the field descriptions and observations with the descriptions available in authentic literature (Kanjilal et al 1934-40; Bennet, 1986; Chowdhury, 2005) and confirmed with ASSAM Herbarium, Shillong. Herbarium specimens were deposited at the TERI herbarium as a voucher specimen for future reference.

## RESULTS AND DISCUSSION

A total number of 303 species under 235 genera from 107 families (table 1, 2 and 3) were recorded from the study area. Out of the total species Pteridophytes comprises of 24 families, 26 genera and 35 species; Gymnosperm recorded only 01 species. Angiosperm comprises of 82 families (dicot 66 and monocot 16), 208 genera (dicot 167 and monocot 41) and 267 species (dicot 213 and monocot 54); (figure 1). Out of the total recorded 267 angiosperm species the composition were trees (83), shrubs (20), herbs (96), climber (35), lianas (9), epiphytes (6), grass (9), bamboo (6) and palm (2) and stem parasite (1); (figure 2).

Among Pteridophytes, Pteridaceae is the most dominant family in the study area in respect to number of species (4 species), followed by Polypodiaceae (3 species), Adiantaceae and Thelypteridaceae each with 3 species. Pteris is the dominant genera representing 4 species, followed by Lygodium with 3 species and Pyrosia, Adiantum, Diplazium and Christella each with 2 species.

Among dicotyledons (figure 3), Asteraceae is the most dominant family in the study area in respect to number of species (15 species), followed by Euphorbiaceae (12 species), Papilionaceae, Moraceae and Verbenaceae each with (11 species), Caesalpiniaceae with (10 species), Rutaceae with (8 species), Rubiaceae and Solanaceae each with (7 species) etc. In Monocot (figure 4) Poaceae is the dominant family (19 species) followed by Araceae and Arecaceae each with (6 species), Orchidaceae (5 species), Cyperaceae (4 species). Among the dicotyledons Ficus is the dominant genera (figure 5) representing with 7 species followed by Cassia and Solanum each with 5 species Clerodendrum with 4 species, Sterculia, Artocarpus, Albizia, Impatiens each with 3 species. Among the monocotyledons dominant genera (figure 6) are Bambusa, Calamus, Cyperus each with 4 species followed by Commelina, Oplismenus and Vanda each with 2 species.

With regard to the usefulness of the 303 plant species are recorded (figure 7) as timber (44), vegetable (47), medicinal (56), edible fruit (13), ornamental (47), fodder (32), broom (2) and miscellaneous uses (62) such as thatch, plate, ritual,

handicraft item, piscicidal, cultural significance, local liquor, silk worm food plants etc.

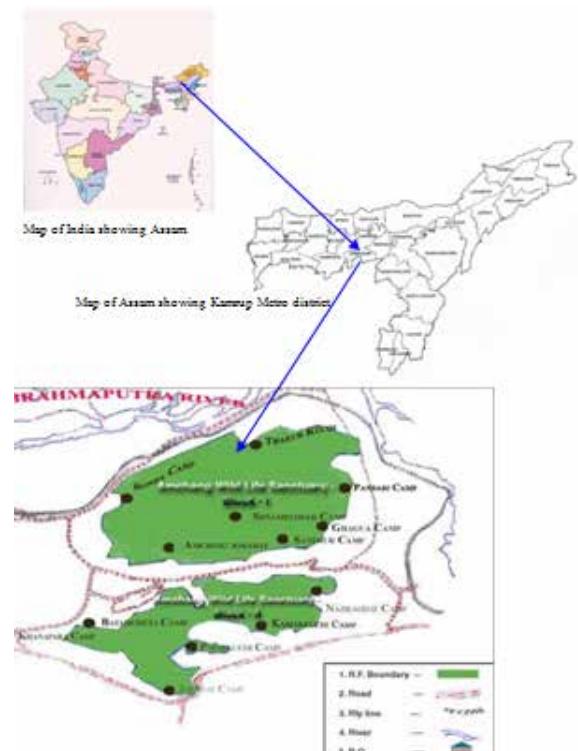


Plate 1 Location map of study area (Amchang Wildlife Sanctuary)

Plate 1 Location map of study area (Amchang Wildlife Sanctuary)

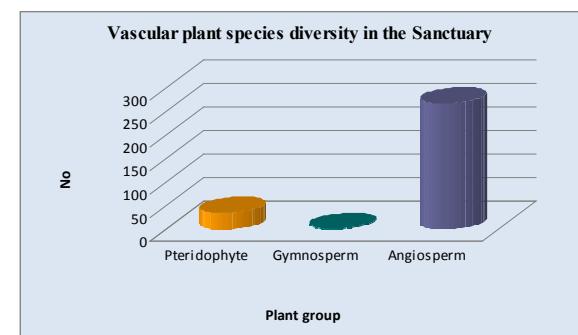


Figure 1: Vascular plant diversity in the sanctuary

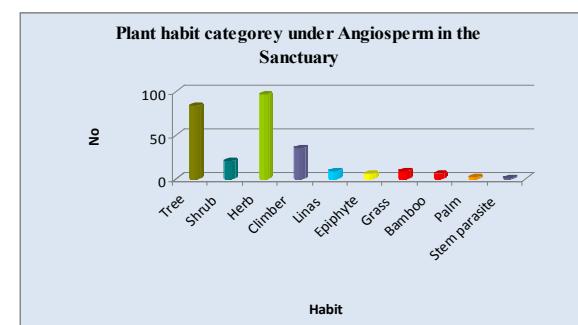


Figure 2: Plant habit in the Sanctuary

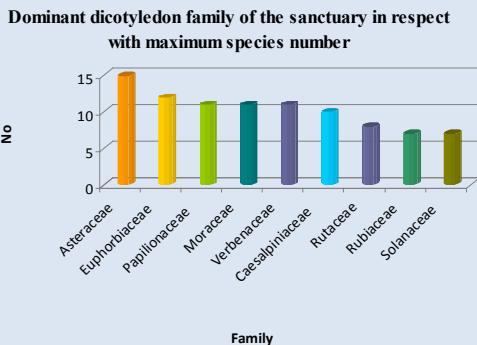


Figure 3: Dominant dicotyledon family of the

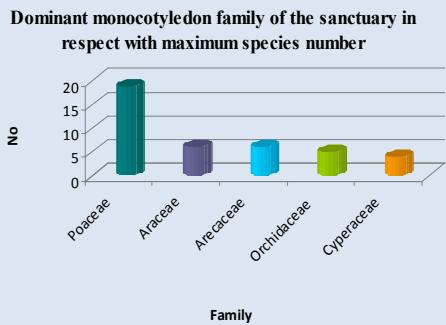


Figure 4: Dominant monocotyledon family of the Sanctuary

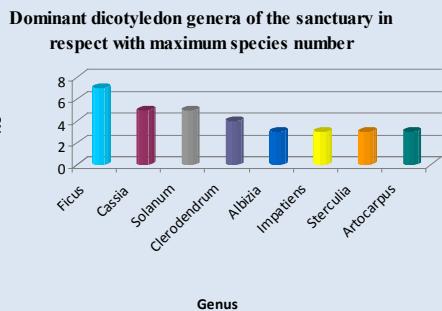


Figure 5: Dominant eight dicotyledon genera of the

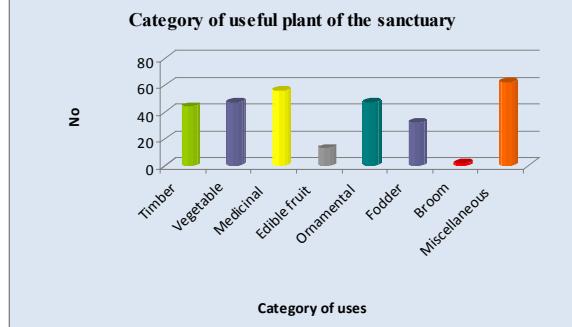
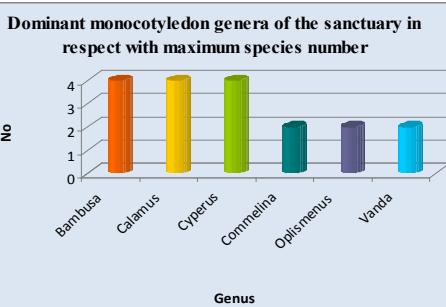


Figure 6: Dominant six monocotyledon genera of the Sanctuary

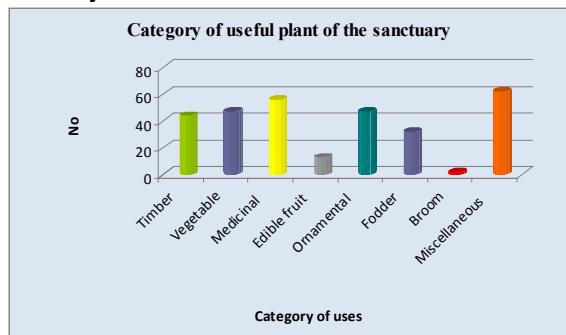


Figure 7: Category of useful plant of the Sanctuary

## CONCLUSION

It is interesting to note that *Careya arborea*, *Vitex peduncularis* and *Lagerostromia parviflora* each with only 2-3 plant recorded from the whole study area. Among tree *Cassia nodosa*, *Tectona grandis*, among shrub *Clerodendrum serratum*, *Holmoskioldia sanguinea*, among lianas *Millettia pachycarpa*, *Cayratia trifolia*, *Schefflera venulosa* and among herb *Cassia tora*, *Chromolaena odorata*, *Chrysopogon aciculatus* are very common in the study area.

It was observed that, there is severe pressure on the sanctuary due to human activities which is an alarming cause for decline in species diversity. Although hunting of wild animal is not quite common in the sanctuary, the main problem that the sanctuary is deforestation and encroachment. There is also the problem of stone quarrying, earth cutting and charcoal making which are highly detrimental to the flora and fauna of the sanctuary. Thus, a multidimensional approach is required with regard to development of a conservation management plan for the safety of the sanctuary. Further research is required on ecology and population dynamics of the species of the sanctuary. Usefulness of the recorded plant may be helpful for the benefit of human welfare as well as conservation approach.

## ACKNOWLEDGEMENT

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Table 1: Pteridophytes of Amchang Wildlife Sanctuary

Sl no	Scientific name	Family	Uses
1	<i>Adiantum capillus-veneris</i> L.	Adiantaceae	Ornamental
2	<i>Adiantum caudatum</i> L.	Adiantaceae	Ornamental
3	<i>Angiopteris evecta</i> (Forst.) Hoffm.	Angiopteridaceae	Medicinal
4	<i>Asplenium nidus</i> L. var. <i>nidus</i>	Aspleniaceae	Ornamental
5	<i>Azolla pinnata</i> R.Br.	Azollaceae	Miscellaneous
6	<i>Blechnum orientale</i> L.	Blechnaceae	Ornamental
7	<i>Ceratopteris thalictroides</i> (L.) Ad.Brongn.	Parkeriaceae	Vegetable
8	<i>Christella apendiculata</i> (Persl.) Holtt.	Thelypteridaceae	Ornamental
9	<i>Christella dentata</i> (Forsk.) Brownsey & Jermy	Thelypteridaceae	Ornamental
10	<i>Cyclosorus parasitica</i> (L.) Lev.	Thelypteridaceae	Medicinal
11	<i>Dicranopteris linearis</i> (Burm f.) Undrew var. <i>linearis</i>	Gleicheniaceae	Ornamental
12	<i>Diplazium esculentum</i> (Retz.) Sw.	Athyriaceae	Vegetable
13	<i>Diplazium polypodioides</i> Bl.	Athyriaceae	Ornamental
14	<i>Dryopteris pterioidiformis</i> Chirst	Dryopteridaceae	Ornamental
15	<i>Drynaria quercifolia</i> (L.) J. Sm.	Drynariaceae	Miscellaneous
16	<i>Equisetum diffusum</i> D.Don	Equisetaceae	Medicinal
17	<i>Helminthostachys zeylanica</i> (L.) Hook.	Helminthostachyaceae	Ornamental
18	<i>Lycopodiella cernua</i> (L.) Pic.	Lycopodiaceae	Medicinal
19	<i>Lygodium flexuosum</i> (L.) Sw.	Lygodiaceae	Ornamental
20	<i>Lygodium japonicum</i> (Thunb.) Sw.	Lygodiaceae	Ornamental
21	<i>Lygodium microphyllum</i> (Cav.) R.Br.	Lygodiaceae	Ornamental
22	<i>Marselia quadrifolia</i> L.	Marseliaceae	Medicinal
23	<i>Nephrolepis cordifolia</i> (Sw.) Schott	Nephrolepidaceae	Medicinal
24	<i>Ophioglossum vulgatum</i> L.	Ophioglossaceae	Vegetable
25	<i>Polypodium amoenum</i> (J.Sm.) Mett.	Polypodiaceae	Ornamental
26	<i>Pteris ensiformis</i> Burm.f	Pteridaceae	Ornamental
27	<i>Pteris linearis</i> Poir.	Pteridaceae	Ornamental
28	<i>Pteris semipinnata</i> L.	Pteridaceae	Ornamental
29	<i>Pteris vittata</i> L.	Pteridaceae	Ornamental
30	<i>Pyrosia adnascens</i> (Sw.) Ching	Polypodiaceae	Ornamental
31	<i>Pyrosia lanceolata</i> (L.) Farwell	Polypodiaceae	Ornamental
32	<i>Salvia natans</i> (L.) All.	Salviniaceae	Miscellaneous
33	<i>Selaginella ciliaris</i> (Retz.) Spring	Selaginellaceae	Ornamental
34	<i>Sphenomeris chinensis</i> (L.) Maxon	Dennstaedtiaceae	Ornamental
35	<i>Stenochlaena palustris</i> (Burm.) Bedd.	Stenochlaenaceae	Ornamental

**Table 2: Gymnosperm of Amchang Wildlife Sanctuary**

Sl no	Scientific name	Family	Uses
1	<i>Cycas pectinata</i> Griff.	Cycadaceae	Medicinal

**Table 3: Angiosperm of Amchang Wildlife Sanctuary**

Sl no	Scientific name	Family	Habit	Uses
1	<i>Abelmoschus moschatus Medicus</i>	Malvaceae	Herb	Medicinal
2	<i>Abrus precatorius L.</i>	Papilionaceae	Climber	Medicinal
3	<i>Acacia moniliformis Griseb</i>	Mimosaceae	Tree	Miscellaneous
4	<i>Acalypha indica L.</i>	Euphorbiaceae	Herb	Ornamental
5	<i>Achyranthes aspera L.</i>	Amaranthaceae	Herb	Medicinal
6	<i>Aegle marmelos Correa.</i>	Rutaceae	Tree	Miscellaneous
7	<i>Ageratum conyzoides L.</i>	Asteraceae	Herb	Fodder
8	<i>Albizia lebbeck (L.) Benth</i>	Mimosaceae	Tree	Timber
9	<i>Albizia lucidor (Steud.) Nielson ex Hara</i>	Mimosaceae	Tree	Timber
10	<i>Albizia odoratissima (L.f.) Benth</i>	Mimosaceae	Tree	Timber
11	<i>Alocasia macrorhiza (L.) G. Don</i>	Araceae	Herb	Vegetable
12	<i>Alstonia scholaris (L.) R.Br.</i>	Apocynaceae	Tree	Timber
13	<i>Alternanthera sessilis R.Br.</i>	Amaranthaceae	Herb	Vegetable
14	<i>Amaranthus spinosus Linn.</i>	Amaranthaceae	Herb	Vegetable
15	<i>Amaranthus viridis Linn.</i>	Amaranthaceae	Herb	Vegetable
16	<i>Amorphophallus bulbifer (Schott.)Bl.</i>	Araceae	Herb	Vegetable
17	<i>Andrographis paniculata (Burm.f.) Wall. ex Nees</i>	Acanthaceae	Herb	Medicinal
18	<i>Antidesma bunius (L.)Spreng</i>	Euphorbiaceae	Tree	Timber
19	<i>Anthocephalus chinensis (Lour)Rehder</i>	Rubiaceae	Tree	Timber
20	<i>Argyeria nervosa (Burm.f.)Bojer</i>	Convolvulaceae	Climber	Miscellaneous
21	<i>Aristolochia tagala Cham.</i>	Aristolochiaceae	Climber	Medicinal
22	<i>Artocarpus chama Buch...Ham.</i>	Moraceae	Tree	Timber
23	<i>Artocarpus lacucha Buch.-Ham</i>	Moraceae	Tree	Timber
24	<i>Artocarpus heterophyllus Lam.</i>	Moraceae	Tree	Fruit edible
25	<i>Arundo donax L. var. donax</i>	Poaceae	Grass	Miscellaneous
26	<i>Axonopus compressus (Sw.) Beauv.</i>	Poaceae	Grass	Fodder
27	<i>Azadirachta indica A. Juss.</i>	Meliaceae	Tree	Medicinal
28	<i>Baccaurea sapida Muell</i>	Euphorbiaceae	Tree	Fruit edible
29	<i>Bambusa bambos (L.) Voss</i>	Poaceae	Bamboo	Miscellaneous
30	<i>Bambusa balcooa Roxb.</i>	Poaceae	Bamboo	Miscellaneous
31	<i>Bambusa vulgaris Schard.</i>	Poaceae	Bamboo	Miscellaneous
32	<i>Bambusa pallida Munro</i>	Poaceae	Bamboo	Miscellaneous
33	<i>Bauhinia acuminata L.</i>	Caesalpiniaceae	Small tree	Ornamental

Sl no	Scientific name	Family	Habit	Uses
34	<i>Bauhinia varigata</i> L.	Caesalpiniaceae	Small tree	Miscellaneous
35	<i>Begonia inflata</i> C.B. Clarke	Begoniaceae	Herb	Vegetable
36	<i>Bidens biternata</i> (Lour.) Merr. & Sheriff	Asteraceae	Herb	Vegetable
37	<i>Biophytum sensitivum</i> (L.) var. <i>sensitivum</i>	Oxalidaceae	Herb	Ornamental
38	<i>Blumea lacera</i> (Burm.f.) DC.var. <i>lacera</i>	Asteraceae	Herb	Vegetable
39	<i>Boerhavia diffusa</i> Linn.	Nyctaginaceae	Herb	Medicinal
40	<i>Bombax ceiba</i> L.	Bombacaceae	Tree	Timber
41	<i>Borreria articularis</i> (L.f.) Will.	Rubiaceae	Herb	Fodder
42	<i>Bridelia retusa</i> (L.)Spreng	Euphorbiaceae	Tree	Timber
43	<i>Burserra serrata</i> Coleb.	Burseraceae	Tree	Fruit edible
44	<i>Butea monosperma</i> (Lamk)Taub	Papilionaceae	Tree	Miscellaneous
45	<i>Butea parviflora</i> (Lamk.) Taub	Papilionaceae	Tree	Miscellaneous
46	<i>Butea superba</i> Roxb.	Papilionaceae	Climber	Miscellaneous
47	<i>Caesalpinia bonduc</i> (L.) Roxb.	Caesalpiniaceae	Climber	Medicinal
48	<i>Calamus tenuis</i> Roxb.	Arecaceae	Lianas	Miscellaneous
49	<i>Calamus leptospadix</i> Griff	Arecaceae	Lianas	Miscellaneous
50	<i>Calamus floribundus</i> Griff.	Arecaceae	Lianas	Miscellaneous
51	<i>Calamus erectus</i> Roxb.	Arecaceae	Lianas	Miscellaneous
52	<i>Callicarpa arborea</i> Roxb.	Verbenaceae	Tree	Timber
53	<i>Cardamine hirsuta</i> L.	Brassicaceae	Herb	Fodder
54	<i>Cardiospermum halicacabum</i> Linn.	Sapindaceae	Climber	Medicinal
55	<i>Careya arborea</i> Roxb.	Lecythidaceae	Tree	Timber
56	<i>Caryota urens</i> L.	Arecaceae	Palm	Miscellaneous
57	<i>Cassia fistula</i> Linn.	Caesalpiniaceae	Tree	Timber
58	<i>Cassia nodosa</i> Linn.	Caesalpiniaceae	Tree	Timber
59	<i>Cassia siamea</i> Lamk.	Caesalpiniaceae	Tree	Timber
60	<i>Cassia sophera</i> Linn.	Caesalpiniaceae	Herb	Fodder
61	<i>Cassia tora</i> Linn.	Caesalpiniaceae	Herb	Fodder
62	<i>Cayratia trifolia</i> (L.) Domin var. <i>trifolia</i>	Vitaceae	Lianas	Fodder
63	<i>Centella asiatica</i> Linn	Apiaceae	Herb	Medicinal
64	<i>Citrus grandis</i> (L.) Osbeck	Rutaceae	Tree	Fruit edible
65	<i>Citrus reticulata</i> Blanco	Rutaceae	Tree	Fruit edible
66	<i>Cinnamomum bejolghata</i> (Buch.-Ham) Sweet	Lauraceae	Tree	Timber
67	<i>Cissampelos pareira</i> L.	Menispermaceae	Climber	Fodder
68	<i>Chromolaena odorata</i> (L.)R.King & H.Robins	Asteraceae	Herb	Fodder
69	<i>Chrysopogon aciculatus</i> (Retz.) Trin.	Poaceae	Grass	Fodder
70	<i>Cleome gynandra</i> L.	Cleomaceae	Herb	Vegetable
71	<i>Cleome viscosa</i> L.	Cleomaceae	Herb	Fodder

Sl no	Scientific name	Family	Habit	Uses
72	<i>Clerodendrum colebrookianum</i> Walpers	Verbenaceae	Shrub	Vegetable
73	<i>Clerodendrum japonicum</i> (Thunberg) Sweet	Verbenaceae	Shrub	Ornamental
74	<i>Clerodendrum serratum</i> (L.) Spreng	Verbenaceae	Shrub	Vegetable
75	<i>Clerodendrum viscosum</i> Vent.	Verbenaceae	Herb	Miscellaneous
76	<i>Cocinia grandis</i> (L.)Voigt.	Cucurbitaceae	Climber	Vegetable
77	<i>Colocasia esculenta</i> (L.) Schott.	Araceae	Herb	Vegetable
78	<i>Commelina benghalensis</i> Linn.	Commelinaceae	Herb	Medicinal
79	<i>Commelina diffusa</i> Burm.f.	Commelinaceae	Herb	Fodder
80	<i>Costus speciosa</i> (Koenig)Sm.	Costaceae	Herb	Medicinal
81	<i>Crinum pratens</i> Herb.	Amaryllidaceae	Herb	Medicinal
82	<i>Croton caudatus</i> Geis. var. <i>caudatus</i>	Euphorbiaceae	Shrub	Miscellaneous
83	<i>Croton joufra</i> Roxb.	Euphorbiaceae	Tree	Medicinal
84	<i>Curcuma angustifolia</i> Roxb.	Zingiberaceae	Herb	Medicinal
85	<i>Cuscuta reflexa</i> Roxb.	Convolvulaceae	Climber	Medicinal
86	<i>Cymbidium aloifolium</i> (L.) Sw.	Orchidaceae	Epiphytic	Ornamental
87	<i>Cynodon dactylon</i> (L.)Pers.	Poaceae	Herb	Miscellaneous
88	<i>Cynoglossum lanceolatum</i> Forsk.	Boraginaceae	Herb	Fodder
89	<i>Cyperus digitatus</i> Roxb.	Cyperaceae	Herb	Fodder
90	<i>Cyperus difformis</i> L.	Cyperaceae	Herb	Fodder
91	<i>Cyperus rotundus</i> L.	Cyperaceae	Herb	Medicinal
92	<i>Cyperus iria</i> L.	Cyperaceae	Herb	Fodder
93	<i>Dactyloctenium aegyptium</i> (L.) Willd.	Poaceae	Grass	Fodder
94	<i>Dalbergia sisso</i> Roxb. ex DC.	Papilionaceae	Tree	Timber
95	<i>Dalhousiea bracteata</i> Grah. ex Roxb.	Papilionaceae	Climber	Miscellaneous
96	<i>Delonix regia</i> Boj	Caesalpiniaceae	Tree	Timber
97	<i>Dendrobium aphyllum</i> (Roxb.)Fischer	Orchidaceae	Epiphytic	Ornamental
98	<i>Dendrocalamus hamiltonii</i> Nees.	Poaceae	Bamboo	Miscellaneous
99	<i>Dendrophthoe falcata</i> (L.f.)Etting	Loranthaceae	Stem parasite	Miscellaneous
100	<i>Deeringia amaranthoides</i> Merrill	Amaranthaceae	Climber	Vegetable
101	<i>Derris indica</i> (Lamk) Bennt	Papilionaceae	Tree	Miscellaneous
102	<i>Desmodium caudatum</i> (Thunb.) DC.	Papilionaceae	Herb	Medicinal
103	<i>Dillenia indica</i> L.	Dilleniaceae	Tree	Fruit edible
104	<i>Dillenia pentagyna</i> Roxb.	Dilleniaceae	Tree	Timber
105	<i>Dioscorea esculenta</i> Burk.	Dioscoreaceae	Climber	Vegetable
106	<i>Diospyros lancaefolia</i> Roxb.	Ebenaceae	Tree	Miscellaneous
107	<i>Dischidia benghalensis</i> Coleb	Asclepiadaceae	Climber	Ornamental
108	<i>Drymaria diandra</i> Bl.	Caryophyllaceae	Herb	Vegetable
109	<i>Duabanga grandiflora</i> (Roxb. ex DC.) Walp	Sonneratiaceae	Tree	Timber

Sl no	Scientific name	Family	Habit	Uses
110	Dysoxylum binectariferum (Roxb.)Hook.f.	Meliaceae	Tree	Timber
111	Echinochloa colonum (L.) Link	Poaceae	Grass	Fodder
112	Eclipta prostrata (L.) L	Asteraceae	Herb	Miscellaneous
113	Ecobolium viridae (Forsk.)Alston	Acanthaceae	Herb	Ornamental
114	Epemeredi indicus (L.) Rothm	Lamiaceae	Herb	Fodder
115	Erythrina stricta Roxb.	Papilionaceae	Tree	Miscellaneous
116	Euphorbia hirta Linn.	Euphorbiaceae	Herb	Miscellaneous
117	Evolvulus nummularis (L.) L.	Convolvulaceae	Herb	Vegetable
118	Ficus benghalensis Linn.	Moraceae	Tree	Miscellaneous
119	Ficus benjamina Linn.	Moraceae	Tree	Ornamental
120	Ficus hispida Vahl	Moraceae	Tree	Vegetable
121	Ficus religiosa L.	Moraceae	Tree	Miscellaneous
122	Ficus racemosa L.	Moraceae	Shrub	Miscellaneous
123	Ficus rumphii Bl.	Moraceae	Tree	Miscellaneous
124	Ficus semicordata Buch.-Ham ex JE.Sm.	Moraceae	Tree	Miscellaneous
125	Garcinia pedunculata Roxb.	Clusiaceae	Tree	Fruit edible
126	Garcinia xanthochymus Hook.f.	Clusiaceae	Tree	Fruit edible
127	Garuga pinnata Roxb.	Burseraceae	Tree	Timber
128	Globba racemosa J.E.Sm.	Zingiberaceae	Herb	Ornamental
129	Gloriosa superba L.	Liliaceae	Shrub	Medicinal
130	Glycosmis arborea (Roxb.)Correa.	Rutaceae	Herb	Medicinal
131	Gmelina arborea Roxb.	Verbenaceae	Tree	Timber
132	Gymnopetalum cochinchinensis (Lour.) Kurz	Cucurbitaceae	Herb	Vegetable
133	Hedyotis corymbosa (L.) Lamk.	Rubiaceae	Herb	Medicinal
134	Hedyotis scandens Roxb. ex D.Don	Rubiaceae	Herb	Medicinal
135	Heliotropium indicum L.	Heliotropaceae	Herb	Medicinal
136	Hollarrhena pubescens (Buch.-Ham.) Wall.	Apocynaceae	Tree	Medicinal
137	Holmoskioldia sanguinea Retz.	Verbenaceae	Lianas	Ornamental
138	Hoya parasitica Wall ex Traill	Asclepiadaceae	Epiphytic	Ornamental
139	Hydrocotyle sibthorioides Lamk.	Apiaceae	Herb	Medicinal
140	Imperata cylindrica (L.) Beauv.	Poaceae	Grass	Miscellaneous
141	Impatiens balsamina L.	Balsaminaceae	Herb	Ornamental
142	Impatiens tripetala DC.	Balsaminaceae	Herb	Ornamental
143	Impatiens cristata Wall	Balsaminaceae	Herb	Ornamental
144	Ipomoea hederifolia Jacq.	Convolvulaceae	Climber	Ornamental
145	Justicia adhatoda L.	Acanthaceae	Shrub	Medicinal
146	Justicia gendarussa L.f.	Acanthaceae	Herb	Miscellaneous
147	Lagerostromia parviflora Roxb.	Lythraceae	Tree	Timber

Sl no	Scientific name	Family	Habit	Uses
148	<i>Lagerostromia reginae</i> Roxb	Lythraceae	Tree	Timber
149	<i>Lannea coromandelica</i> (Houtt.)Merr.	Anacardiaceae	Tree	Timber
150	<i>Lantana camara</i> Linn.	Verbenaceae	Herb	Miscellaneous
151	<i>Lasia spinosa</i> (L.) Thwaites	Araceae	Herb	Vegetable
152	<i>Leea indica</i> (Burm.f.)Merr.	Leeaceae	Shrub	Medicinal
153	<i>Leucas plukentii</i> (Roth) Spreng	Lamiaceae	Herb	Vegetable
154	<i>Lindernia crustaceaen</i> (L.) F.Muell.	Scrophulariaceae	Herb	Fodder
155	<i>Litsea glutinosa</i> (Lour.)Robins	Lauraceae	Tree	Timber
156	<i>Ludwigia octovalvis</i> (Jacq.)Raven	Onagraceae	Herb	Fodder
157	<i>Myriopteron paniculatum</i> Griff.	Periplocaceae	Climber	Miscellaneous
158	<i>Mallotus philippensis</i> (Lamk)Mueller	Euphorbiaceae	Tree	Miscellaneous
159	<i>Mangifera indica</i> Linn.	Anacardiaceae	Tree	Fruit edible
160	<i>Manihot esculenta</i> Crantz.	Euphorbiaceae	Shrub	Vegetable
161	<i>Mazus pumilus</i> (Burm.f.)Steenis	Scrophulariaceae	Herb	Fodder
162	<i>Melastoma malabathricum</i> L.	Melastomataceae	Herb	Miscellaneous
163	<i>Melia azedarach</i> L.	Meliaceae	Tree	Timber
164	<i>Merremia vitifolia</i> (Burm.f.)Hallier f.	Convolvulaceae	Climber	Fodder
165	<i>Mesua ferrea</i> L.	Clusiaceae	Tree	Timber
166	<i>Michelia champaca</i> L.	Magnoliaceae	Tree	Timber
167	<i>Mikania micrantha</i> (L.) Kunth	Asteraceae	Climber	Fodder
168	<i>Milletia pachycarpa</i> Benth.	Papilionaceae	Lianas	Miscellaneous
169	<i>Mimosa pudica</i> Linn.	Mimosaceae	Herb	Medicinal
170	<i>Mimosa rubicaulis</i> Lamk. ssp. himalayana (Gamble) Ohashi	Mimosaceae	Herb	Miscellaneous
171	<i>Mollugo pentaphylla</i> L.	Molluginaceae	Herb	Vegetable
172	<i>Monochoria hastata</i> (L.) Solms-Laub	Pontaderiaceae	Herb	Vegetable
173	<i>Morinda angustifolia</i> Roxb.	Rubiaceae	Shrub	Medicinal
174	<i>Mucuna pruriens</i> (L.) DC.	Papilionaceae	Climber	Medicinal
175	<i>Mukia maderaspatana</i> (L.)Roem	Cucurbitaceae	Climber	Miscellaneous
176	<i>Murraya koenigii</i> (L.) Spreng.	Rutaceae	Shrub	Medicinal
177	<i>Musa balbisiana</i> Colla.	Musaceae	Herb	Vegetable
178	<i>Mussaenda roxburghii</i> Hook.f	Rubiaceae	Shrub	Miscellaneous
179	<i>Natsiatum herpeticum</i> Buch.-Ham. ex Arn	Icacinaceae	Climber	Vegetable
180	<i>Nicotiana plumbaginifolia</i> Viv.	Solanaceae	Herb	Fodder
181	<i>Oenanthe javanica</i> (Blume)DC.	Apiaceae	Herb	Vegetable
182	<i>Oplismenus burmannii</i> (Retz.) Beauv.	Poaceae	Herb	Fodder
183	<i>Oplismenus compositus</i> (L.)Beauv.	Poaceae	Herb	Fodder
184	<i>Oroxylum indicum</i> (L.)Vent.	Bignoniaceae	Tree	Miscellaneous

Sl no	Scientific name	Family	Habit	Uses
185	<i>Oxalis corniculata</i> L.	Oxalidaceae	Herb	Vegetable
186	<i>Oxalis debilis</i> H.B.K. var. <i>corymbosa</i> (DC.) Lour.	Oxalidaceae	Herb	Vegetable
187	<i>Paederia foetida</i> Linn.	Rubiaceae	Climber	Vegetable
188	<i>Pandanus furcatus</i> Roxb.	Pandanaceae	Shrub	Ornamental
189	<i>Panicum repens</i> L.	Poaceae	Grass	Fodder
190	<i>Parthenium hysterophorus</i> L.	Asteraceae	Herb	Miscellaneous
191	<i>Passiflora foetida</i> L.	Passifloraceae	Climber	Ornamental
192	<i>Peperomoea pelucida</i> (L.) H.B.K.	Piperaceae	Herb	Vegetable
193	<i>Physalis minima</i> L.	Solanaceae	Herb	Vegetable
194	<i>Phoenix sylvestris</i> Roxb.	Arecaceae	Palm	Fruit edible
195	<i>Piper longum</i> L.	Piperaceae	Climber	Medicinal
196	<i>Piper thomsonii</i> (C.DC.) Hook.f	Piperaceae	Climber	Medicinal
197	<i>Plumeria alba</i> L.	Apocynaceae	Tree	Ornamental
198	<i>Polygonum barbatum</i> L.var. <i>barbatum</i>	Polygonaceae	Herb	Fodder
199	<i>Polygonum perfoliatum</i> L.	Polygonaceae	Climber	Vegetable
200	<i>Porana paniculata</i> Roxb.	Convolvulaceae	Climber	Miscellaneous
201	<i>Portulaca oleracea</i> Linn. var. <i>oleracea</i>	Portulacaceae	Herb	Vegetable
202	<i>Pouzolzia zeylanica</i> (L.) Benn. & Brown	Urticaceae	Herb	Medicinal
203	<i>Premna latifolia</i> Roxb.	Verbenaceae	Tree	Timber
204	<i>Quisqualis indica</i> L.	Combretaceae	Climber	Ornamental
205	<i>Raphidophora decursiva</i> (Roxb.) Schott	Araceae	Climber	Ornamental
206	<i>Rhynchosystylis retusa</i> (L.) Bl.	Orchidaceae	Epiphytic	Miscellaneous
207	<i>Ricinus communis</i> Linn.	Euphorbiaceae	Shrub	Miscellaneous
208	<i>Sapium baccatum</i> Roxb.	Euphorbiaceae	Tree	Timber
209	<i>Saraca asoca</i> (Roxb.) de Willde	Caesalpiniaceae	Tree	Medicinal
210	<i>Schefflera venulosa</i> (W.&A.) Harms	Araliaceae	Lianas	Miscellaneous
211	<i>Schizostachyum polymorphum</i> (Munro) Majumdar	Poaceae	Bamboo	Miscellaneous
212	<i>Sclerostachya fusca</i> (Roxb.) A. camus	Poaceae	Grass	Miscellaneous
213	<i>Scoparia dulcis</i> L.	Scrophulariaceae	Herb	Miscellaneous
214	<i>Schima wallichii</i> (DC.) Kuntze var. <i>wallichii</i>	Theaceae	Tree	Timber
215	<i>Semecarpus anacardium</i> L.f.	Anacardiaceae	Tree	Timber
216	<i>Setaria pumila</i> (Poir.) Roem. & Schutt.	Poaceae	Grass	Fodder
217	<i>Shorea robusta</i> Gaertn.f.	Dipterocarpaceae	Tree	Timber
218	<i>Sida acuta</i> Burm.f.	Malvaceae	Herb	Broom
219	<i>Sida rhombifolia</i> L. ssp. <i>retusa</i> (L.) Borss.	Malvaceae	Herb	Medicinal
220	<i>Siegesbeckia orientalis</i> L.	Asteraceae	Herb	Fodder
221	<i>Smilax glabra</i> Roxb.	Smilacaceae	Climber	Vegetable

Sl no	Scientific name	Family	Habit	Uses
222	<i>Smilax perfoliata</i> Lour	Smilacaceae	Climber	Vegetable
223	<i>Spilanthes clava</i> DC.	Asteraceae	Herb	Medicinal
224	<i>Spilanthes paniculata</i> DC.	Asteraceae	Herb	Medicinal
225	<i>Solanum anguivi</i> Lamk.	Solanaceae	Herb	Vegetable
226	<i>Solanum erianthum</i> D. Don	Solanaceae	Shrub	Medicinal
227	<i>Solanum nigrum</i> Linn.	Solanaceae	Herb	Vegetable
228	<i>Solanum torvum</i> Sw.	Solanaceae	Shrub	Vegetable
229	<i>Solanum viarum</i> Dunal	Solanaceae	Herb	Medicinal
230	<i>Sonchus brachyotus</i> DC.	Asteraceae	Herb	Vegetable
231	<i>Spondias pinnata</i> (L.f.)Kurz.	Anacardiaceae	Tree	Fruit edible
232	<i>Stachytapheta jamaicensis</i> (L.)Vahl	Verbenaceae	Herb	Ornamental
233	<i>Stephania japonica</i> (Thunb.) Miers	Menispermaceae	Climber	Miscellaneous
234	<i>Stellaria media</i> (L.)Villars	Caryophyllaceae	Herb	Vegetable
235	<i>Stemona tuberosa</i> Lour.	Stemonaceae	Climber	Medicinal
236	<i>Sterculia guttata</i> Roxb.	Sterculiaceae	Tree	Timber
237	<i>Sterculia urens</i> Roxb.	Sterculiaceae	Tree	Timber
238	<i>Sterculia villosa</i> Roxb.	Sterculiaceae	Tree	Timber
239	<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Tree	Timber
240	<i>Strblus asper</i> Lour	Moraceae	Tree	Timber
241	<i>Tabernaemontana divaricata</i> (L.) R.Br.	Apocynaceae	Shrub	Miscellaneous
242	<i>Tamarindus indica</i> Linn.	Papilionaceae	Tree	Fruit edible
243	<i>Tectona grandis</i> Linn.	Verbenaceae	Tree	Timber
244	<i>Terminalia bellerica</i> (Gaertn.) Roxb	Combretaceae	Tree	Medicinal
245	<i>Terminalia chebula</i> Retz.	Combretaceae	Tree	Medicinal
246	<i>Thunbergia grandiflora</i> (Rottl.) Roxb.	Thunbergiaceae	Climber	Miscellaneous
247	<i>Thysanolaena maxima</i> Roxb.	Poaceae	Shrub	Broom
248	<i>Tinospora cordifolia</i> (Willd.) Hook.f. & Th.	Menispermaceae	Climber	Medicinal
249	<i>Toddalia asiatica</i> (L.) Lamk.	Rutaceae	Linas	Miscellaneous
250	<i>Toona ciliata</i> M. Roem.	Meliaceae	Tree	Timber
251	<i>Trewna nudiflora</i> L.	Euphorbiaceae	Tree	Timber
252	<i>Trevesia palmata</i> (Roxb.) Vis	Araliaceae	Shrub	Miscellaneous
253	<i>Trichosanthes bracteata</i> (Lamk.)Voigt.	Cucurbitaceae	Climber	Medicinal
254	<i>Tridax procumbens</i> L.	Asteraceae	Herb	Fodder
255	<i>Typhonium trilobatum</i> (L.)Schott.	Araceae	Herb	Vegetable
256	<i>Urena lobata</i> L.	Malvaceae	Herb	Medicinal
257	<i>Vanda teres</i> Roxb.	Orchidaceae	Epiphytic	Ornamental
258	<i>Vanda testacea</i> (Lindl.)Reich.f.	Orchidaceae	Epiphytic	Ornamental

Sl no	Scientific name	Family	Habit	Uses
259	Vitex negundo Linn.	Verbenaceae	Shrub	Medicinal
260	Vitex peduncularis Wall ex Schauer	Verbenaceae	Tree	Medicinal
261	Vernonia cinerea (L.) Less	Asteraceae	Herb	Medicinal
262	Wedelia chinensis (Osb.) Merr.	Asteraceae	Herb	Miscellaneous
263	Wrightia arborea R.Br.	Apocynaceae	Tree	Timber
264	Xanthium strumarium Linn	Asteraceae	Herb	Vegetable
265	Zanthoxylum oxyphyllum Edgw.	Rutaceae	Tree	Vegetable
266	Zanthoxylum rhetsa (Roxb) DC	Rutaceae	Tree	Miscellaneous
267	Ziziphus mauritiana Lamk.	Rhamnaceae	Tree	Fruit edible

Plate.2 Photographs of Amchang Wildlife Sanctuary



Photo.1 Entry point of Bonda camp range, Photo.2 Tectona grandis (Shegun) forest, Photo. 3 Fruit of Mucuna pruriens a medicinal plant, Photo. 4 Fruit of Aristolochia tagala a rare medicinal plant, Photo. 5 Abelmoschus moschatus with flower and fruit an important medicinal plant, Photo. 6 Mixed forest, Photo. 7 Habitat of Lycopodiella cernua, Photo. 8 Entry point of Jorabat camp, Photo. 9 Holmoskioldia sanguinea with red flower, Photo. 10 Fruit of Myriopteron paniculatum, Photo. 11 Lagerstroemia parviflora tree, Photo. 12 Curcuma angustifolia a medicina plant of the sanctuary

### Plate.3 Photographs of Amchang Wildlife Sanctuary

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