

**A PRELIMINARY CHECKLIST OF THE ANGIOSPERMIC FLORA OF
GHAGOTIA UNION UNDER KAPASIA UPAZILA IN
GAZIPUR DISTRICT, BANGLADESH**

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Abstract

Angiospermic flora of Ghagotia Union representing Magnoliopsida (Dicots) and Liliopsida (Monocots) have been inventoried after survey during the years of 2004 and 2005. A total of 187 species have been recorded from the area. These have been assigned to 65 families and 160 genera. Magnoliopsida is represented by 50 families, 113 genera and 133 species, whereas Liliopsida is represented by 15 families, 47 genera and 54 species.

Introduction

Ghagotia Union is located in Kapasia Upazila under Gazipur District, Bangladesh. It lies between 24°07' and 24°11' N latitudes and 90°38' and 90°42' E longitudes. It is about 70 km north-east from Dhaka. The Union consists of mainly medium high plain land and low plain land. Some small hillocks are also present in the western part of the Union which are covered by natural secondary *Sal* (*Shorea robusta*) forest. Other parts are covered by homestead vegetation and cultivated lands.

Ghagotia Union is mainly dominated by the extension of shallow upland soil. Dissected terrace soil is found in some high ridges and alluvial soil is found in the valleys. The western part of the area is composed of some red and brown clay of the mixed variety of deep dissected terrace soil. The eastern part of the area contains some fertile soil with grey and white-brown plain clay soil (Rizvi 1969). The area enjoys a tropical climate characterized by a period of high precipitation from May to October and six months of relatively dry period from November to April. The mean annual rainfall is about 1693 mm. Temperature of the area ranges from 21-34°C. The maximum temperature was recorded in April and the minimum was recorded in January during the study period.

A number of floristic works have so far been done in greater Dhaka District including Ismail and Mia (1973), Alam (1995), Hossain *et al.* (1995), Rahman and Hassan (1995) and Rashid *et al.* (1995). But no floristic studies are found in the Ghagotia Union of Gazipur District. Moreover, the area supports a large number of angiospermic species including herbs, shrubs, trees, climbers, epiphytes, parasites and also plenty of hydrophytes. Like other parts of the country, the floristic elements of this area is in risk

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because of various anthropogenic activities including irrigation and modern agriculture, population settlements and firewood collection and also habitat degradation. In order to make a documentation of the angiospermic vegetation of the area, an attempt has been made to prepare a preliminary checklist of the angiospermic plant species occurring in Ghagotia Union of Gazipur District.

Materials and Methods

The work is based on the fresh materials collected through repeated field trips (eight in total) to the area during the years of 2004 and 2005. Botanical specimens were collected, and field identification of the collected specimens were confirmed comparing with herbarium specimens at Salar Khan Herbarium (University of Dhaka) and Bangladesh National Herbarium. In some cases, standard literature, such as Hooker (1872-1897), Prain (1903), Brandis (1906), Kanjilal *et al.* (1934, 1938, 1939, 1940), Bor (1960), Khan (1977, 1984, 1985), Deb (1981, 1983), Matthew (1999a, 1999b, 1999c) and Uddin and Hassan (2004) were consulted for identification purposes. The specimens were mounted and deposited in the Salar Khan Herbarium, University of Dhaka for future references.

Results

In the present survey, a total of 187 angiospermic species under 160 genera and 65 families have been recorded from the Ghagotia Union. Magnoliopsida is represented by 50 families, 113 genera and 133 species, while Liliopsida is represented by 15 families, 47 genera and 54 species. The families have been arranged according to Cronquist (1981). The genera under each family and the species under each genus are arranged in an alphabetical order. For each species, nomenclature has been brought up to date and local name (wherever available) and a short annotation is provided.

MAGNOLIOPSIDA (DICOTS)

1. Annonaceae

Uvaria hamiltonii Hook. f. & Thomson, Fl. Ind.: 96 (1820). Local name: *Bandor kola*. A scandent shrub.

2. Lauraceae

Litsea glutinosa (Lour.) C.B. Robinson in Philip. J. Sci. Bot. 6: 321 (1911). *Sebifera glutinosa* Lour., Fl. Cochinch.: 638 (1990). Local name: *Chapaitta*. A medium-sized, evergreen tree.

3. Piperaceae

Peperomia pellucida (L.) H.B.K., Nov. Gen. *et*. Sp. 1: 64 (1815). *Piper pellucidum* L., Sp. Pl. 1: 30 (1753). Local name: *Luchipata*. A small, annual herb.

4. Nymphaeaceae

Nymphaea nouchali Burm. f., Fl. Ind.: 120 (1768). *Nymphaea pubescens* Willd., Sp. Pl. 2: 1154 (1799). Local name: *Shapla*. A perennial aquatic herb with creeping rhizome.

N. rubra Roxb. *ex* Salisb., Parad. London 1: sub. t. 14 (1805). Local name: *Ogul phul*. A perennial aquatic herb with creeping rhizome.

N. stellata Willd., Sp. Pl. 2: 1153 (1799). Local name: *Shinduk*. A perennial aquatic herb with creeping rhizome.

5. Ulmaceae

Trema orientalis (L.) Bl., Mus. Bot. Lugd.-Bat. 2: 63 (1856). *Celtis orientalis* L., Sp. Pl.: 1044 (1753). Local name: *Narsa*. An evergreen, small tree.

6. Moraceae

Ficus benghalensis L., Sp. Pl.: 1059 (1753). Local name: *Bot*. A large, spreading tree.

F. heterophylla L. f., Suppl.: 442 (1781). Local name: *Bhuidumur*. A hispid, scandent shrub.

F. rumphii Bl., Bijdr.: 437(1825). Local name: *Guya assawth*. A large tree.

7. Portulacaceae

Portulaca oleracea L., Sp. Pl.: 445 (1753). Local name: *Bara nunia*. A prostrate, annual herb.

8. Chenopodiaceae

Chenopodium ambrosioides L., Sp. Pl.: 219 (1753). An annual, erect herb.

9. Amaranthaceae

Achyranthes aspera L., Sp. Pl. 1: 204 (1753). Local name: *Apang*. A perennial herb.

Alternanthera philoxeroides (Mart.) Griseb., Abh. Ges. Goett. Wiss 24: 36 (1879). *Bucholzia phyloxeroides* Mart., Beitr. Amar.: 107 (1825). Local name: *Helencha*. An annual herb.

A. sessilis (L.) R. Br. *ex* DC., Cat. Hort. Monsp.: 77 (1813). *Gomphrena sessilis* L., Sp. Pl.: 225 (1753). Local name: *Kantanotey*. An annual, profusely branched herb.

Celosia argentea L., Sp. Pl.: 205 (1753). Local name: *Thainthainna*. An annual, erect herb.

10. Polygonaceae

Persicaria hydropiper (L.) Spach, Hist. Veg. 10: 536 (1841). *Polygonum hydropiper* L., Sp. Pl.: 361 (1753). Local name: *Pakurmul*. An annual herb.

P. minor (Huds.) Opiz, Seenam, Rosplin, Kbeteny, Ceske: 72 (1852). *Polygonum minus* (Huds.), Fl. Angl. 1: 148 (1762). An annual, erect or ascending herb.

Polygonum plebejum R. Br., Prodr. Fl. Nov. Holl.: 420 (1810). A prostrate or diffuse herb.

Rumex maritimus L., Sp. Pl.: 335 (1753). Local name: *Ban palang*. An annual herb.

11. Dipterocarpaceae

Shorea robusta Roxb. *ex* Gaertn. f., De Fruct. 3: 48, t. 186 (1805). Local names: *Gojari*, *Sal*. A tall, deciduous tree.

12. Tiliaceae

Microcos paniculata L., Sp. Pl. 1: 514 (1753). Local name: *Dattoi*. A shrub or small tree.

13. Malvaceae

Sida cordata (Burm. f.) Borss. in Blumea 14 (1): 182 (1966). *Melochia cordata* Burm. f., Fl. Ind.: 143 (1768). Local name: *Junka*. An annual, prostrate or ascending herb.

Urena lobata L., Sp. Pl.: 692 (1753). Local name: *Banokra*. An undershrub.

14. Lecythidaceae

Barringtonia acutangula (L.) Gaertn., Fruct. 2: 97 t. 101 (1791). *Eugenia acutangula* L., Sp. Pl.: 471 (1753). Local name: *Hizol*. A small tree.

Careya arborea Roxb., Corom. Pl. 3: 14. t. 218 (1811). Local name: *Gadila*. A small to medium-sized, deciduous tree.

15. Flacourtiaceae

Flacourtia indica (Burm. f.) Merrill, Interpr. Rumph. Herb. Amb.: 377 (1917). *Gmelina indica* Burm. f., Fl. Ind.: 132, t. 39, f. 5 (1768). Local name: *Dephoi gota*. A much branched, thorny shrub.

F. jangomas (Lour.) Raeusched. Nomencl. Bot. 3: 290 (1797). *Stigmarota jangomas* Lour., Fl. Cochinch. 2: 634 (1790). Local name: *Fela gota*. A middle-sized tree.

16. Cucurbitaceae

Coccinia grandis (L.) Voit., Hort. Suburb. Calcut.: 59 (1845). *Bryonia grandis* L., Mant. Pl. 1: 126 (1767). Local names: *Kawajhinga*, *Telakucha*. A much branched, climbing or prostrate herb.

17. Capparaceae

Cleome viscosa L., Sp. Pl.: 672 (1753). Local name: *Hurhuria*. An erect, glandular-pubescent herb.

18. Sapotaceae

Manilkara hexandra (Roxb.) Dub. in Ann. Muss. Col. Marseille, Ser. 3, 3: 9 (1915). *Mimusops hexandra* Roxb., Pl. Cor. 1: 16, t. 15 (1795). Local name: *Khiron gota*. A tree with deeply furrowed bark.

19. Mimosaceae

Acacia concinna (Willd.) DC., Prodr. 2: 464 (1825). *Mimosa concinna* Willd., Sp. Pl. 4: 1039 (1805). Local name: *Banritha*. A prickly shrub.

Albizia chinensis (Osborne) Merr., Amer. J. Bot. 3: 575 (1916). *Mimosa chinensis* Osb., Degbok Ostind. Resa.: 233 (1757). Local name: *Mashkala*. A tall, unarmed tree.

A. procera Benth. in Hook., London J. Bot. 3: 89 (1844). Local name: *Koroi*. A medium-sized tree.

Mimosa pudica L., Sp. Pl.: 518 (1753). Local name: *Lojjabati*. A prickly, woody herb.

20. Caesalpinaceae

Senna sophora (L.) Roxb., Mem. N.Y. Bot. Gard. 35: 440 (1982). *Cassia sophora* L., Sp. Pl.: 279 (1753). Local name: *Jhingi*. A woody herb to undershrub.

21. Fabaceae (Papilionaceae)

Crotalaria pallida Aiton, Hort. Kew, 2: 20 (1789). Local name: *Bara jhanjhani*. An annual herb.

Desmodium heterophyllum (Willd.) DC., Prodr. 2: 334 (1825). *Desmodium triflorum* Wight. & Arn., Prodr.: 229 (1834). A procumbent herb.

Erythrina ovalifolia Roxb. [Hort. Beng.: 53 (1814) nom. nud.], Fl. Ind. 3: 251 (1832). Local name: *Mandar*. A deciduous, small tree.

Pueraria phaseoloides (Roxb.) Benth., J. Linn. Soc. Bot. 9: 125 (1867). *Dolichos phaseoloides* Roxb., Fl. Ind. 3: 316 (1832). A herbaceous, pubescent climber.

22. Lythraceae

Lagerstroemia parviflora Roxb., Pl. Corm. 1: 47, t. 66 (1795). Local name: *Tila jarul*. A small, bushy tree.

L. speciosa (L.) Pers., Syn. 2: 72 (1807). *Munchausia speciosa* L., Mant. Pl. 2: 243 (1771). Local name: *Jarul*. A large, deciduous tree.

23. Myrtaceae

Syzygium fruticosum (Roxb.) DC., Prodr. 3: 260 (1828). *Eugenia fruticosa* Roxb., Fl. Ind. 2: 87 (1832). Local name: *Titijam*. A small tree.

24. Onagraceae

Ludwigia adscendens (L.) Hara, J. Jap. Bot. 28: 290 (1953). *Jussiaea adscendens* L., Mant. 1: 69 (1767). Local name: *Keshardam*. A creeping or floating herb.

L. hyssopifolia (G. Don.) Exell. Garica de Orta 5: 471 (1957). *Jussiaea hyssopifolia* G. Don, Gen. Syst. 2: 693 (1832). A branched herb.

25. Melastomaceae

Melastoma malabathricum L., Sp. Pl.: 390 (1753). Local name: *Datrange*. A shrub.

26. Combretaceae

Terminalia bellirica (Gaertn.) Roxb., Pl. Corom. 2: 54, t, 198 (1805). *Myrobalanus bellirica* Gaertn., De. Fruct. Semi. 2: 90, t, 97 (1791). Local name: *Bohera*. A large tree.

27. Rhizophoraceae

Carallia brachiata (Lour.) Merr., Philip. J. Sci. 15: 249 (1919). A small to medium-sized tree with erect trunk.

28. Alangiaceae

Alangium salvifolium (L. f.) Wangerin in Pfreich 41: 9 (1910). *Grewia salvifolia* L. f. Suppl.: 409 (1781). Local name: *Gugur*. A small tree.

29. Loranthaceae

Dendrophthoe falcata (L. f.) Etting. in Denschr. Akad. Wissench. Wien. Mathem – Naturawiss. Cl. 32: 52 (1872). *Loranthus falcatus* L. f., Suppl. Sp. Pl.: 221 (1781). A parasite with terete branchlets.

Macrosolen cochinchinensis (Lour.) van Tiegh., Bull. Soc. B. Fr. 41: 122 (1895). *Loranthus cochinchinensis* Lour., Fl. Coch. 1: 195 (1790). Local name: *Chhota banda*. A stout, parasitic shrub.

30. Euphorbiaceae

Antidesma gaesembilla Gaertn., Fruct. 1: 189, t. 39 (1788). Local name: *Khudijam*. A small tree.

Aporusa dioica (Roxb.) Muell.-Arg. in DC., Prodr. 15(2): 472 (1866). *Alnus dioica* Roxb., Fl. Ind. 3: 580 (1832). A medium-sized, evergreen tree.

A. wallichii Hook. f., Fl. Brit. Ind. 5: 350 (1885). A medium-sized tree.

Bridelia retusa (L.) Spreng., Syst. Veg. 3: 48 (1829). *Clutia retusa* L., Sp. Pl.: 1042 (1753). A medium-sized tree.

Croton bonplandianum Baill., Adansonia 4: 339 (1864). An annual herb.

Gelonium multiflorum Roxb., Fl. Ind. 3: 832 (1832). A medium-sized tree.

Jatropha curcas L., Sp. Pl.: 1006 (1753). Local name: *Veron*. A large, glabrous shrub or rarely small tree.

J. gossypifolia L., Sp. Pl.: 1006 (1753). Local name: *Lalbherenda*. A small shrub.

Macaranga peltata (Roxb.) Muell.-Arg. in DC., Prodr. 15(2): 1010 (1866). *Osyris peltata* Roxb. (1832). Local name: *Pidali*. A small tree.

Mallotus philippensis (Lam.) Muell.-Arg. in Linnaea 34: 196 (1865). *Croton philippense* Lam., Encycl. Meth. B. 2: 209 (1786). A medium-sized tree.

Phyllanthus reticulatus Poir. in Lam., Encycl. Meth. B. 5: 298 (1804). Local name: *Sitki*. A large, scandent shrub or small tree.

P. urinaria L., Sp. Pl.: 982 (1753). An erect, glabrous, annual herb.

Putranjiva roxburghii Wall., Tent. Fl. Nep.: 61 (1826). Local name: *Phoolgach*. A large tree.

Ricinus communis L., Sp. Pl.: 1007 (1753). Local name: *Rerhi*. A shrub.

Trewia nudiflora L., Sp. Pl. ed. 3: 166 (1753). Local name: *Latim*. A deciduous tree.

31. Leeaceae

Leea aequata L., Syst. Nat. ed. 12, 2: 627 (1767). *Leea hirta* Roxb., Fl. Ind. 2: 469 (1824). Local name: *Pagol gota gach*. A shrub.

32. Sapindaceae

Allophyllus cobbe Bl., Rumph. 3: 131 (1849). Local name: *Chitta*. A shrub.

Erioglossum rubiginossum (Roxb.) Bl., Rumphia 3: 118 (1849). *Sapindus rubiginossum* Roxb., Fl. Corom. 1: 44. t. 62 (1795). Local name: *Hanni gota*. A small tree.

33. Anacardiaceae

Lannea coromandelica (Houtt.) Merr. J. Arnold. Arbor. 19: 353 (1938). *Dialium coromandelicum* Houtt., Nat. Hist. 2: 39, t. 5, f. 2 (1774). Local name: *Kaphila*. A medium-sized, deciduous tree.

34. Meliaceae

Aphanamixis polystachya (Wall.) Parker in Ind. For. 57: 486 (1931). *Aglaia polystachya* Wall. in Roxb., Fl. Ind. 2: 429 (1824). Local name: *Roonna*. A tree with dense spreading crown.

Melia azedarach L., Sp. Pl.: 384 (1753). Local name: *Gora nim*. A medium-sized tree.

35. Rutaceae

Clausena suffruticosa Wight & Arn., Prodr.: 96 (1834). A small shrub.

Glycosmis pentaphylla (Retz.) A. DC., Prodr. 1: 538 (1824). *Limonia pentaphylla* Retz. Obs. Bot. 5: 24 (1788). Local names: *Motkila*, *Matmoti*. A shrub or small tree.

Micromelum minutum (Forst. f.) Wight & Arn., Prodr. 1: 448 (1834). *Limonia minutum* Forst. f., Prodr.: 33 (1786). Local name: *Thullui*. A bushy shrub.

Zanthoxylum rhetsa (Roxb.) DC. Prodr.: 728 (1824). *Fagara rhetsa* Roxb. Fl. Ind. 1: 437 (1820). Local name: *Bazna*. An evergreen, small tree.

36. Oxalidaceae

Oxalis corniculata L., Sp. Pl.: 435 (1753). Local name: *Amrul*. An annual herb.

37. Apiaceae (Umbelliferae)

Centella asiatica (L.) Urban in Mart., Fl. Bras. 11. 1: 287 (1879). *Hydrocotyle asiatica* L., Sp. Pl. : 234 (1753). Local names: *Manik pata*, *Thankuni*. A perennial, trailing herb.

38. Apocynaceae

Alstonia scholaris (L.) R. Br. in Mem. Wern. Nat. Hist. S. 1: 75 (1811). *Echites scholaris* L., Mant. Pl. 1: 53 (1767). Local name: *Chatim*. A medium-sized tree.

Ervatamia coronaria (Jacq.) Stapf, Fl. Trop. Africa 4(1): 127 (1904). *Nerium coronarium* Jacq., Ic. Pl. Rar. 1: 5, Pl. 52 (1781). Local name: *Ban marich*. A shrub or small tree.

Holarrhena pubescens (Buch.-Ham.) Wall. *ex* G. Don, Gen. Syst. 4: 95 (1837). *Echites pubescens* Buch.-Ham. in Trans. Linn. Soc. 13: 521(1821) Local name: *Kudishar*. A shrub.

Wrightia arborea (Dennst.) Mabblerly in Taxon 26: 533 (1977). *Periploca arborea* Dennst., Schlüs. H. Malabar.: 13, 23 (1818). Local name: *Dhudi*. A small, deciduous tree.

39. Solanaceae

Nicotiana plumbaginifolia Viv., Elench. Pl. Hort. Dinergo : 26. t. (1802). A slender, erect, annual herb.

Physalis minima L., Sp. Pl.: 183 (1753). An annual, glabrous, herb.

Solanum lasiocarpum Dunal, Hist. Solanum: 222 (1813). *Solanum indicum* L. Sp. Pl.: 187 (1753). Local name: *Titbegun*. An under-shrub with prickles.

S. torvum Sw., Nov. Gen. Sp. Pl.: 47 (1788). Local name: *Bootbegun*. A small shrub.

40. **Convolvulaceae**

Argyreia argentea (Roxb.) Choisy, Mem. Soc. Phys. Geneve. 6: 418 (1833). *Lettsomea argentea* Roxb., Fl. Ind. ed. Carey & Wall. 2: 79 (1824). A creeping herb.

Ipomoea aquatica Forsk., Fl. Aeg.-Arab.: 44 (1775). Local name: *Kalmilata*. A glabrous trailer on water.

I. fistulosa Mart. ex Choisy in DC., Prodr. 9: 349 (1845). Local name: *Dholkalmi*. A fistular shrub.

Merremia hederacea (Burm. f.) Hallier f., Bot. Jahrb. 18 : 118 (1994). *Evolvulus hederaceus* Burm. f., Fl. Ind.: 77, t. 30 (1768). Local name: *Puhilot*. A twinner.

41. **Cuscutaceae**

Cuscuta reflexa Roxb., Pl. Corom. 2: 3, t. 104 (1798). Local name: *Swarnalata*. A fleshy parasite, forming dense yellow masses on small trees or shrubs.

42. **Boraginaceae**

Heliotropium indicum L., Sp. Pl.: 130 (1753). Local name: *Hatisur*. An annual, erect herb.

43. **Verbenaceae**

Callicarpa lanceolaria Roxb., Fl. Ind. 1: 395 (1820). A shrub.

Clerodendrum indicum (L.) Kuntze, Rev. Gen. Pl. 2: 506 (1891). *Siphonanthus indica* L. Sp. Pl. : 109 (1753). A small shrub.

C. viscosum Vent., Gard. Malm. 1: t. 25 (1803). Local name: *Vant*. A perennial, woody herb to undershrub.

Lippia javanica (Burm. f.) Spreng., Syst. 2: 752 (1825). An undershrub.

Vitex negundo L. Sp. Pl. : 638 (1753). A small tree.

44. **Lamiaceae (Labiatae)**

Anisomeles indica (L.) O. Kuntze, Rev. Gen. : 512 (1891). *Nepeta indica* L. Sp. Pl. : 571 (1753). Annual or perennial bushy undershrub.

Dysophylla crassicaulis Benth. in Wall., Pl. As. Rar. 1.: 30 (1830). An annual herb.

D. verticillata Benth. in Wall., Pl. As. Rar. 1: 30 (1830). An annual herb.

Hyptis suaveolens (L.) Poit., Ann. Mus. Par. 7: 472, t. 29 (1806). *Ballota suaveolens* L., Syst. Nat. ed. 10: 1100 (1859). Local name: *Tokma*. An aromatic herb.

Leonurus japonicus Houtt., Nat. Hist. Pl. 9: 366, t. 57 (1778). *Leonurus sibiricus* Hook. f., Fl. Brit. Ind. 4: 678 (1885). Local name: *Roktadron*. An erect, stout, leafy herb.

Leucas aspera Spreng., Syst. 2: 743 (1825). Local name: *Dorhalash*. A herb.

L. lavandulifolia Sm. in Rees, Cyclop. 20: n. 2 (1819). Local names: *Dorhalash*, *Shetodron*. An annual, erect, branched herb.

Ocimum sanctum L., Mart. 1: 85 (1867). Local name: *Kalo tulshi*. A much branched, soft hairy, perennial herb.

45. Scrophulariaceae

Limnophylla heterophylla (Roxb.) Benth., Scroph. Ind.: 25 (1835). *Columnnea heterophylla* Roxb., Fl. Ind. ed. 2, 3: 97 (1832). A glabrous, aquatic herb.

Lindernia crustacea (L.) F. Muell., Cens. Austr. Pl.: 97 (1882). *Capraria crustacea* L. Mant. Pl. 1: 87 (1767). A dichotomously branched, prostrate herb.

46. Bignoniaceae

Oroxylum indicum (L.) Kurz., For. Fl. Br. Burma 2: 237 (1877). *Bignonia indica* L., Sp. Pl.: 625 (1753). Local name: *Kanaidengi*. A medium-sized tree.

47. Acanthaceae

Adhatoda zeylanica Medik., Hist. & Comment. Acad. Elect. Sci. Theod. Palat. 6: 393 (1790). *Adhatoda vasica* Nees in Wall., Pl. As. Rar. 3: 103 (1832). Local name : *Basok*. A shrub.

Ecbolium linneanum Kurz. in J. As. Soc. 2: 75 (1871). A shrub.

Justicia gendarusa Burm. f., Fl. Ind.: 10 (1768). Local name: *Bishdoloni*. An undershrub.

Phlogacanthus curviflorus Nees in DC., Prodr. 11: 320 (1847). A small shrub.

Rungia pectinata (L.) Nees in DC., Prodr. 11: 469 (1847). *Justicia pectinata* L., Amoen. Acad. 4: 293 (1759). A much branched, prostrate or suberect herb.

Thunbergia grandiflora (Roxb. *ex* Rottler) Roxb. in Bot. Reg. 6: t. 495 (1820). *Flemingia grandiflora* Roxb. *ex*. Rottler, Ges. Naturf. Freund Berlin Neue Schriften 4: 202 (1803). A climber.

48. Lentibulariaceae

Utricularia aurea Lour., Fl. Cochinch. 1: 26 (1790). *Utricularia flexuosa* Vahl. Enum. 1: 198 (1804). An aquatic insectivorous herb.

49. Rubiaceae

Hymenodictyon excelsum (Roxb.) Wall. in Roxb., Fl. Ind. 2: 149 (1824). *Cinchona excelsa* Roxb., Fl. Corom. 2: 4. t. 106 (1799). A large tree.

Ixora acuminata Roxb. [Hort. Beng.: 10 (1814) nom nud.], Fl. Ind. 1: 383 (1820). An undershrub.

- I. cuneifolia** Roxb., Fl. Ind. 1: 380 (1820). An evergreen shrub.
- Morinda angustifolia** Roxb. [Hort. Beng. 15 (1814) nom. nud.], Fl. Ind. 2: 201 (1824). An erect shrub.
- M. citrifolia** L., DC. Prodr. 4: 446 (1830). A glabrous, small tree.
- Pavetta tomentosa** Roxb. ex Smith in Rees, Cycl. 26: 2 (1819). A shrub.
- Xeromphis spinosa** (Thunb.) Keay in Bull. Jard. B. Brux. 28: 37 (1958). *Gardenia spinosa* Thunb., Diss. Gard. n. 7. t. 2 (1780). Local name: *Monkata*. A shrub with strong spines.
50. **Asteraceae**
- Ageratum conyzoides** L., Sp. Pl.: 839 (1753). Local name: *Hialmuti*. An annual herb.
- Blumea lacera** (Burm. f.) DC. in Wight., Contrib. Bot. Ind.: 14 (1834). *Conyza lacera* Burm. f., Fl. Ind.: 180, t. 59. (1768). An erect, annual, aromatic herb.
- Eclipta prostrata** L., Mant. 2: 286 (1771). Local name: *Kalokeshoti*. An erect, annual herb.
- Enhydra fluctuans** Lour., Fl. Cochinch.: 511 (1790). Local name: *Helencha*. A profusely branched, annual herb.
- Eupatorium odoratum** L., Syst. Nat. ed. 10: 1205 (1759). Local names: *Podina*, *Motmoitta*. A shrub.
- Gnaphalium luteo-album** L., subsp. **affine** (D. Don) Koster, Blumea 4: 484 (1941). An erect, annual herb.
- Grangea maderaspatana** (L.) Poir., Enc. Suppl. 2: 825 (1811). *Artemisia maderaspatana* L., Sp. Pl.: 849 (1753). An annual herb.
- Mikania cordata** (Burm. f.) Robinson in Contrib., Gray Herb. 104: 65 (1934). *Eupatorium cordatum* Burm. f., Fl. Ind.: 176 (1768). Local name: *Assamlata*. An annual, twining herb.
- Spilanthes calva** DC. in Wight, Contrib. Bot. Ind.: 19 (1834). An annual herb.
- Synedrella nodiflora** (L.) Gaertn., Fruct. 2: 456, t. 171 (1791). *Verbesina nodiflora* L., Cent. Pl. 1: 28 (1755). A small woody herb.
- Xanthium strumarium** L., Sp. Pl. : 987 (1753). An erect, annual herb.

LILIOPSIDA (MONOCOTS)

1. Hydrocharitaceae

- Blyxa octandra** (Roxb.) Planch. ex Thw., Enum. Pl. Zeyl.: 332 (1864). *Vallisneria octandra* Roxb., Pl. Cor. 2 : 34, t. 165 (1802). A stemless, submerged herb.

Hydrilla verticillata (L. f.) Royle, 111. Bot. Himal. t.: 376. (1839). *Serpicula verticillata* L. f., Suppl.: 416 (1781). An aquatic herb.

2. Aponogetonaceae

Aponogeton natans (L.) Eng. & Krause in Engl. Pflanz. 24: 11 (1906). *Saururus natans* L., Mant. 2: 227 (1771). An aquatic herb.

3. Araceae

Alocasia fornicata (Roxb.) Schott, Oestr. Bot. Wochenbl. 4: 410 (1854). *Arum fornicatum* Roxb., Fl. Ind. 3: 501 (1832). A tuberous, coarse herb.

Amorphophallus bulbifer (Roxb.) Bl., Rumphia 1: 148 (1837). *Arum bulbiferum* Roxb., Fl. Ind. 3: 510 (1832). Local name: *Amla-Bela*. A tuberous herb.

Colocasia esculenta (L.) Schott in Schott & Endl., Melet. Bot.: 18 (1832). *Arum esculentum* L., Sp. Pl.: 965 (1753). Local name: *Kachu*. A tall coarse herb.

Pistia stratiotes L., Sp. Pl.: 963 (1753). Local name: *Topapana*. A floating, gregarious herb.

Scindapsus officinalis (Roxb.) Schott. in Schott & Endl. Melet. Bot. 1: 21 (1832). *Pothos officinalis* Roxb., Fl. Ind. : 431 (1820). A scandent herb.

Typhonium trilobatum (L.) Schott. in Wien., Zeitschr. 3: 72 (1829). *Arum trilobatum* L., Sp. Pl. : 965 (1753). A tuberous herb.

4. Commelinaceae

Commelina benghalensis L., Sp. Pl. : 41 (1753). A slender herb.

Murdania nudiflora (L.) Brenan, Kew Bull. 7: 189 (1952). *Commelina nudiflora* L., Sp. Pl.: 41 (1753). An annual, diffuse herb.

5. Cyperaceae

Cyperus difformis L., Cent. Pl. 2: 6 (1756). Local name: *Mutha*. An annual, tufted herb.

C. diffusus Vahl., Enum. Pl. 2: 321 (1806). A perennial herb.

C. iria L., Sp. Pl. ed. 1. : 45 (1753). An annual or rarely perennial herb.

C. tenuispica Steudl., Syn. Pl. Glumac. 2: 11 (1855). An annual, occasionally short-lived perennial herb.

Eleocharis retroflexa (Poir.) Urban., Symb. Ant. 2: 165 (1900). *Scirpus retroflexus* Poir (1804). An annual, tufted herb.

Fimbristylis dichotoma (L.) Vahl, Enum. Pl. 2: 287 (1806). *Scirpus dichotomus* L. Sp. Pl.ed. 1.: 50 (1753). A perennial, rhizomatous herb.

F. miliacea (L.) Vahl., Enum. Pl. 2: 287 (1806). *Scirpus miliaceus* L., Syst. Nat. ed. 10: 868 (1759). An annual or occasionally biennial, tufted herb.

F. squarrosa Vahl, Enum. Pl. 2: 289 (1806). An annual, tufted herb.

Pycneus pumilus (L.) Nees, Linnaea 9: 283 (1835). *Cyperus pumilus* L., Cent. Pl. 2: 6 (1756). An annual, densely tufted herb.

Scleria levis Retz., Obs. Bot. 4: 13 (1786). A perennial, rhizomatous herb.

6. Poaceae (Gramineae)

Axonopus compressus (Sw.) P. Beauv., Ess. Agrost.: 12(154): 167 (1812). *Milium compressum* Sw., Prod.: 24 (1788). A tufted, perennial herb.

Bambusa balcooa Roxb., Fl. Ind. 1: 196 (1820). Local name: *Barakbans*. A tall, stout, densely caespitose bamboo.

Chrysopogon aciculatus (Retz.) Trin., Fund. Agrost. 188 (1820). *Andropogon aciculatus* Retz. Obs. Bot. 5: 22. (1789). A glabrous herb.

Cynodon dactylon (L.) Pers., Syn. Pl. ed.1.: 85 (1805). *Panicum dactylon* L., Sp. Pl.: 58 (1753). Local name: *Durba*. A creeping herb.

Cyrtococcum accrescens (Trin.) Stapf in Hook., Ic. Pl. t.: 3096 (1922). *Panicum accrescens* Trin., Sp. Gram. Ic. 1, t. 88 (1828). An annual herb.

Echinochloa crusgalli (L.) P. Beauv., Ess. Agrost. 53: 161 (1812). *Panicum crusgalli* L., Sp. Pl. ed. 1, 1: 56 (1753). Annual or perennial grass.

Eleusine indica (L.) Gaertn., Fruct. 1: 8 (1789). *Cynusurus indicus* L., Sp. Pl. ed.1.: 72 (1753). A tufted, annual herb.

Eragrostis uniolooides (Retz.) Nees ex Steud., Syn. Pl. Glum. 1: 264 (1854). *Poa uniolooides* Retz. Obs. Bot. 5: 19 (1789). An annual herb.

Hemarthria protensa Steud., Syn. Pl. Glum. 1: 359 (1854). Local name: *Chailla*. An erect to decumbent herb.

Hygroryza aristata (Retz.) Nees in Wight & Arn., Edinb. New Philos. J. 15: 380 (1833) *Pharus aristatus* Retz., Obs. Bot. 5: 23 (1789). A floating, glabrous herb.

Hymenachne pseudointerrupta C. Mueller, Bot. Zeitung (Berlin). 19: 333 (1861). An annual grass.

Ichananthus vicinus (F. M. Bailey) Merr, Enum. Philipp., Fl. Pl. 1: 70 (1923). *Panicum vicinus* F.M. Bailey, Syn. Queens., Fl. Suppl. 3: 82 (1890). A perennial herb.

Imperata cylindrica (L.) Reaeschel, Nom. Bot. ed. 3: 10 (1797). *Lagurus cylindricus* L., Syst. Nat. ed. 10: 878 (1759). Local name: *Son*. A rhizomatous, perennial grass.

Leptochloa chinensis (L.) Nees, Syll. Pl. Nov. 1: 4 (1824). *Poa chinensis* L., Sp. Pl. ed. 1: 69 (1753). A tufted grass.

Melocanna baccifera (Roxb.) Kurz, Prelim. Rep. For. Veg. Pegu. App. B.: 94 (1875). *Bambusa baccifera* Roxb., Pl. Corm. 3: 38, 243 (1819). Local name: *Moli bansh*. An evergreen, unarmed bamboo.

Oplismenus compositus (L.) P. Beauv., Ess. Agrost 54:168 (1812). *Panicum compositum* L., Sp. Pl. ed. 1. : 57 (1753). A perennial grass.

Panicum notatum Retz., Obs. Bot. 4: 18 (1786). A tufted, perennial grass.

P. repens L., Sp. Pl. ed. 2: 87 (1762). A perennial, rhizomatous grass.

Paspalidium flavidum (Retz.) A. Camus in Lecomte, Fl. Gen. Indo-Chine 7: 419 (1922). *Panicum flavidum* Retz., Obs. Bot. 4: 15 (1786). An annual grass.

Sporobolus diander (Retz.) P. Beauv., Ess. Agrost.: 26: 147 (1812). *Agrostis diander* Retz., Obs. Bot. 5: 19 (1789). A caespitose, perennial grass.

Vetiveria zizanioides (L.) Nash in Small, Fl. South-East U.S. ed. 1: 67(1903). *Phalaris zizanioides* L., Mant. 2: 183 (1771). Local name: *Binna*. A rhizomatous, aromatic, perennial grass.

7. Zingiberaceae

Curcuma zedoaria (Christm.) Rosc., Trans. Linn. Soc. London, 8: 354 (1807). *Amomum zedoaria* Christm. in Christm. & Panzer, Linn. Pflanesyst. 5: 12 (1779). Local name: *Hoiter gach*. A stemless herb with pale yellow-white rhizome.

8. Costaceae

Costus speciosus (Koenig) Smith in Trans. Linn. Soc. London 1: 249 (1791). *Banksea speciosa* Koenig in Retz., Obs. Bot. 3: 75 (1783). A rhizomatous herb.

9. Arecaceae (Palmae)

Calamus viminalis Willd., Sp. Pl. 2: 203 (1799). A thicket-forming climber.

Caryota urens L., Sp. Pl.: 1189 (1753). A tall, monoecious palm.

10. Pandanaceae

Pandanus fascicularis Lam. in Hook, f., Fl. Brit. Ind. 6: 485 (1894). Local name: *Keya*. A bushy shrub.

11. Lemnaceae

Lemna perpusilla Torrey, Fl. New York. 2: 245 (1843). A small, floating aquatic herb.

12. Pontederiaceae

Eichhornia crassipes (Mart.) Solms in A. DC., Mon. Phan. 4: 527 (1883). *Pontederia crassipes* Mart., Nov. Gen. Sp.: 9, t. 4 (1823). Local name: *Kachuripana*. An aquatic, free-floating herb.

Monochoria hastata (L.) Solms. in A. DC., Mon. Phan. 4: 523 (1883). *Pontederia hastata* L., Sp. Pl.: 288 (1753). An aquatic, emergent herb.

13. Liliaceae

Curculigo orchioides Gaertn., Fruct. 1: 63, t. 13 (1788). A slender herb with elongated rhizome.

14. Dioscoreaceae

Dioscorea bellophylla (Prain) J. O. Voigt ex Haines, Forest Fl. Choto Nagpur.: 530 (1910). *Dioscorea nummularia* var. *bellophylla* Prain, Bengal Pl. 2: 802 (1903), Ind. Rep. 1963. A perennial climber.

D. pentaphylla L., Sp. Pl.: 1032 (1753). A large, slender twinter.

15. Orchidaceae

Vanda tessellata (Roxb.) Hook. ex G. Don in Loud., Hort. Brit.: 372 (1830). *Epidendrum tessellatum* Roxb., Pl. Corom. 1: 34, t. 42 (1795). An epiphytic herb.

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