

CHECKLIST FLORA OF KHADIMNAGAR NATIONAL PARK UNDER SYLHET DISTRICT IN BANGLADESH

MAHBUBA SULTANA¹, MOHAMMAD SYEDUR RAHMAN,
MOHAMMAD AMDADUL HOQUE AND AHMED SAQEE

Bangladesh National Herbarium, Chiriakhana Road, Mirpur-1, Dhaka-1216, Bangladesh

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Abstract

A checklist of vascular flora (Angiosperms, Gymnosperms & Pteridophytes) of Khadimnagar National Park (KHNP) has been prepared. The present study has found 402 species under 278 genera and 99 families. Among them, Pteridophytes is represented by 36 species, Gymnosperms by 1 species, Dicotyledons by 271 species and Monocotyledons by 94 species. Dominant families having 10 or more species of the study area are Euphorbiaceae (28 species), Rubiaceae (19 species), Poaceae (18 species), Acanthaceae (16 species), Asteraceae (13 species), Commelinaceae (13 species), Arecaceae (11 species), Fabaceae (10 species), Cyperaceae (10 species), Moraceae (10 species), and Verbenaceae (10 species). The largest genus is *Ficus* with 8 species followed by *Dioscorea* with 6 species and *Cyperus*, *Murdannia*, *Phyllanthus*, *Piper* with 5 species each. Among the species, the number of herbs, shrubs, climbers and trees are 168, 101, 44 and 89 respectively. The vegetation of the area is semi-evergreen in nature and that comprises with 367 evergreen and 35 deciduous plant species. The data analysis has also revealed that 268 plant species (over 67% of the total flora) have either known economical or ecological values.

Introduction

The Khadimnagar National Park (KHNP) is located in the North-eastern region of the country under Sylhet Sadar and Gowainghat Upazila. It is about 11-12 km East from Sylhet Sadar. Geographically, KHNP lies between 24° 56' to 24° 58' N and 91° 55' to 91° 59' E. Total area of the park is 679 ha (1676.73 acres). It was declared as National Park in 2006 A.D. by Bangladesh Government through Gazette Notification No. PA BA MA (SHA-3) 31/2004/335 under Bangladesh Wild Life (Preservation) Amendment Act, 1974. The park is surrounded by six tea gardens, viz. Charagang and Habibnagar in the East, Burjan and Kalagul in the West, Gulni in the North & Khadim in the South. A small segment of the park is fallen under the Bateshwar Cantonment area. About three-quarters of the forest is mixed evergreen plantation forest, while the rest comprises degraded hills with fodders and grasses. Topography of the area is a combination of hills, valleys & streams. A number of water courses, locally known as 'chhara', run across the area. The hills of this forest, locally known as 'tilla', are generally low and gently sloping at heights of 10-50 m. There are two walking trails to climb the hill; one takes 45 minutes and the other need 2 hours to walk. Soil ranges from clay loams to loams on the hills and loam to sandy loams in valleys and foot hills (Annon 2006). Weather character of KHNP reflects both of the warm and humid climates. April and May are the warmest period and December and January are the coolest period. A tropical monsoon climate represents KHNP with the average maximum temperature of 30.7°C and minimum temperature of 18.9°C and the average rainfall of about 3931 mm which falls during June to September (BBS/UNDP, 2005).

¹ Corresponding author: E-mail: mahbuba9471@gmail.com

The Khadimnagar forests were declared reserved forests in 1914. This was abandoned tea garden and the forest was composed of stands of natural bamboo; rattan and some other plants, which were gradually harvested and converted to plantations during 1951-2004. After 1950 plantations arised comprised of Segun (*Tectona grandis* L. f.), Garjan (*Dipterocarpus turbinatus* C.F. Gaertn), Bamboo (*Bambusa* spp.), Champa (*Magnolia champaca* Baill.), Akashmoni (*Acacia auriculiformis* Benth.), Agar (*Aquilaria malaccensis* Lam.) and Eucalyptus (*Eucalyptus alba* Reinw.) had been carried out by the Forest Department. Hence most of the forest in KHNP is secondary forest. Part of the National park is termed Scattered Tree (ST) which consists of scattered and sporadic remnants of original high forests. Khadimnagar forest was used during the Second World War as an ammunition depot. Some remnant structures of Second World War still remain there.



Fig. 1: Map of Khadimnagar National Park (KHNP).

Protected areas such as national parks, wildlife sanctuaries and game reserves play very important role to conserve & enrich biodiversity and natural heritage of a country. Presently, there are 37 protected areas comprised of 17 National Parks (NP) and 20 Wildlife Sanctuaries (WS) in Bangladesh covering an area of 265,981 ha, which is 1.8% of total land masses and 10% of total forest land of the country (Ahsan *et al.* 2016). Over the last few decades, several initiatives had been taken to explore the plant diversity of the forests of different protected areas initiated by Khan *et al.* (1994), followed by Rahman and Hassan (1995), Uddin *et al.* (1998), Uddin and Rahman (1999), Khan and Huq (2001), Uddin and Hassan (2002), Uddin and Hassan (2003), Uddin and Hassan (2004), Rahman and Hassan (2019), Arefin *et al.* 2011, Hossen and Hossain (2018), Rahman *et al.* (2018), Uddin and Hassan (2010), Rahman *et al.* (2020), Uddin and Rahman (2021), Harun-Ur-Rashid *et al.* (2018), Rahman *et al.* (2017). Though, a lot works had

been conducted on Khadimnagar National Park [viz. Ara *et al.* (2021), Islam *et al.* (2021), Khan *et al.* (2011), Limon *et al.* (2021), Mahfuz-Ur-Rahman and Dey (2021), Masum and Hasan (2020), Rahman *et al.* (2018), Rahman *et al.* (2010), Rahman *et al.* (2011), Rahman *et al.* (2021), Rahman *et al.* (2011), Redowan *et al.* (2015), Saimun *et al.* (2021) and Sarker (2016)], but very few of them are on the floristic survey of KHNP viz. Uddin (2015), Sobuj and Rahman (2011), Mohammad *et al.* (2011) and Rahman *et al.* (2011). The park belongs to the category-II of IUCN protected area management categories (IUCN 1994). The values of different aspects of this park is now realized both by local and international communities. A project in collaboration with Forest Department has been working in the park to establish co-management strategy for the conservation of biodiversity and sustainable development. For the sake of management of biodiversity, assessment of plant diversity especially angiosperm and pteridophytes diversity is very essential. It will provide baseline information and on which action plan can be made. That is why the present study has been undertaken.

Materials and Methods

Five field visits, each lasted for five to seven days, in different seasons during the years 2018 to 2021 have been conducted using area map to investigate vascular flora of KHNP. The botanical survey and sample collection was done by walking along the existing forest trails, springs (chharas) and roads. Each compartment of this park was carefully combed to assure the listing of available plant species occurring in the area. Plant specimens were collected by following conservation ethics. Approximately 1,800 fertile specimens were collected along with photographs and field information viz. locality, date, habit and any other notable characteristics. Voucher herbarium sheets were made from those specimens by following the standard herbarium techniques and stored mainly at Bangladesh National Herbarium (BNH). All collected specimens were identified by consulting with experts, matching with preserved specimens at BNH and Kew (online herbarium specimens) and using authentic taxonomic literatures (viz., Hooker, 1872-1897, Prain 1903, Huq 1986, Wu *et al.* 1995-2013, Ahmed *et al.* 2007-2009, Alam 1988, Brandis 1906, Das and Alam 2001, Kanjilal *et al.* 1938, Kurz 1877).

Literature and online databases, such as the plant list (2013), IPNI (2018) & TROPICOS (2010), were reviewed to confirm taxonomic status of each species. The rariness of plant species has been determined on the basis of occurrence in different sites. Species occurs in 1-4 localities stated as 'rare'; species occurs in 5-24 localities stated as 'occasional'; species occurs in 25-100 localities stated as 'common'; and species occurs in more than 100 localities stated as 'very common'. Economical and ecological use of species was recorder by field observation, group discussion with local people during field works and consulting literatures (i.e. Uddin 2006, Uddin and Hassan 2018, Yusuf 2009, Pasha and Uddin 2019, Alam 1988; Hasan *et al.*, 2014). The families of Pteridophyta and Gymnosperm have been arranged according to the classification system of Kramer & Green (1990). Whereas, Liliopsida and Magnoliopsida have been arranged according to the classification system of Cronquist (1981). Species under each family & genus has been arranged alphabetically.

Results

In the present study of vascular flora of the Khadimnagar National Park (KHNP) forests range has revealed a total of 402 vascular plants species under 278 genera and 99 families (Table 1). Among these, Magnoliophyta consists of 365 species under 252 genera and 83 families (Dicotyledons 271 species under 195 genera & 66 families and Monocotyledons 94 species 57 genera & 17 families). Whereas, Pteridophyta consists of 36 species under 25 genera and 15 families and Gymnosperms consists of 1 species under a single genus and family. The study has revealed that Magnoliopsida (Dicot) constitutes about 67.41% while Liliopsida (Monocot)

constitutes 23.38% followed by Pteridophytes 8.96% and Gymnosperms 0.25 % of the total vascular flora.

Table 1. Taxonomic enumeration of major plant group of the Khadimnagar National Park (KHNP).

	Pteridophyta (Fern)	Gymnosperm	Liliopsida (Monocot)	Magnoliopsida (Dicot)	Total
Families	15	01	17	66	99
Genera	25	01	57	195	278
Species	36	01	94	271	402
Species (%)	8.96	0.25	23.38	67.41	100

Each taxon is presented in the paper with valid name, important synonyms (if any), habit & habitat, local name/s (if any), ecology, flowering & fruiting time, use, rariness and representative specimen.

PTERIDOPHYTES

EQUISETACEAE L.C.Richard

Equisetum ramosissimum Desf. subsp. **debile** (Roxb. ex Vaucher) Hauke, Fl. Atlant. 2: 398. 1799. *Hippochaete ramosissima* (Desf.) Börner. LN: *Bash-ghas*, *Horse tail*. Perennial herb, very rarely occur in shady place. RS: DMS 2803 (DACB).

SELAGINELLACEAE Wilk.

Selaginella ciliaris (Retz.) Spring, Bull. Acad. Roy. Sci. Brux. 10: 231. 1843. *Lycopodium ciliare* Retz. Herb, commonly occur in shady place of forest bed and side of hill. RS: Sayedur 3708 (DACB).

Selaginella inaequalifolia (Hook. & Grev.) Spring, Bull. Acad. Brux. 10: 145. 1843. Perennial herb, rarely occurs in hill slopes and along forest trails. RS: DMS 2393 (DACB).

Selaginella tenuifolia Spring, Mem. Acad. Sci. Belg. 24(2): 253. 1850. LN: *Selaginella*. Herb, occasionally occur in shady forest and hill slope. Use: Ornamental. RS: Sayedur 3732 (DACB).

DRYOPTERIDACEAE Alston

Bolbitis costata (Presl) Ching ex C.Chr., Ind. Fil. Suppl. 3: 47. 1934. LN: *Dhekia*. Herb, rarely occur in shady forest near stream and hill slope. RS: Sayedur 3711 (DACB).

Bolbitis heteroclita (C.Presl) Ching, Index Filic., Suppl. 3: 48. 1934. *Acrostichum heteroclitum* C. Presl. Herb, rarely occur in shady forest near stream and hill slope. RS: Sayedur 3708 (DACB).

MARATTIACEAE Berchtold et Presl

Angiopteris evecta (Forst) Hoffm., Comm. Soc. Reg. Sci. Gott. 12: 29. 1796. LN: Raj dekhia. Shrub, occasionally occurs in shady forest and side of hill. Use: Medicine. RS: Sayedur 3709 (DACB).

LYGODIACEAE M.Roem

Lygodium flexuosum (L.) Sw., J. Bot. (Schrader) 1800, (2): 106. 1801. *Ophioglossum flexuosum* L. LN: *Lata Dhekia*. Climber, commonly occur in scrub jungle. Use: Medicine. RS: DMS 2830 (DACB).

PTERIDACEAE E.D.M.Kirchn.

Adiantum philippense L., Sp. Pl. 2: 1094. 1753. *Adiantum lunulatum* Burm. f., LN: *Kali-jhant*. Herb, commonly occurs in shady forest and side of hill. Use: Ornamental. RS: DMS 4013 (DACB).

Cheilosoria belangeri (Bory in Belang.) Ching & Shing, Gloss. Terms & Names of Ferns 39. 1982. *Cheilanthes belangeri* (Bory in Belang.) C. Chr. Herb, rarely occur in shady forest of hill slope. RS: DMS 981 (DACB).

Cheilosoria tenuifolia (Burm.f.) Trevis., Atti dell' Istit. Veneto 5(3): 579. 1877. *Cheilanthes tenuifolia* (Burm.f.) Sw. Herb, commonly occurs in side of hill. RS: DMS 2343 (DACB).

Pityrogram macalomelanos (L.) Link, Hand. 3: 20. 1833. LN: Silver fern. Herb, occasionally occur in hill slope. Use: Ornamental. RS: DMS 2392 (DACB).

Pteris longipinnula Wall. ex J. Agardh, Recens. Spec. Pter. 19. 1839. *Pteris umbraculifera* Mett. ex Miq. Herb, rarely occur in shady forest of hill slope. RS: S.Y. Dong 5193 (IBSC).

Pteris biaurita L., Sp. Pl. 2: 1076. 1753. LN: *Jungli dhekia*. Herb, rarely occur in shady forest of hill. RS: DMS 2726 (DACB).

Pteris semipinnata L., Sp. Pl. 2: 1076. 1753. Big herb, commonly occur in side of hill. RS: DMS2704, 2712 (DACB).

Pteris vittata L., Sp. Pl. 2: 1074. 1753. LN: *Sun fern*. Herb, commonly occurs in shady place, on wall or stone. Use: Arsenic indicator. RS: DMS 2274 (DACB).

CYATHEACEAE Kaulf.

Cyathea gigantean (Wall. ex Hook.) Holtt., Gard. Bull. Straits Settlem. 8(4): 318. 1935. *Alsophila gigantean* Wall. ex Hook. Tree fern, commonly occur in shady place. Use: Medicine. RS: DMS 3358, Sayedur 3719 (DACB).

Sphaeropteris brunoniana (Hook.) R.M. Tryon, Contr. Gray Herb. 200: 21. 1970. *Alsophila brunoniana* Hook. LN: *Hayate Mursalin*. Tree fern, occasionally occurs in shady place. Use: Medicine. RS: DMS 3356, 2354 (DACB).

POLYPODIACEAE J.Presl & C.Presl

Microsorium punctatum (L.) Copel., Uni. Calif. Pub. Bot. 16: 111. 1929. LN: *Gucha patra fern*, *Hodda*. Epiphytic fern, occasionally occur on tree trunk. RS: DMS 2768, 2810 (DACB).

Pyrrosia piloselloides (L.) M.G. Price, Kalikasan 3: 176. 1975. *Oetosis piloselloides* (L.) Kuntze. Epiphytic herb, occasionally occur on big tree trunk. RS: DMS 2411, 3349 (DACB).

Pyrrosia adnascens (Sw.) Ching, Bull. Chin. Bot. Soc. 1(1): 45. 1935. *Polypodium adnascens* Sw. Epiphytic fern, occasionally occur on big tree trunk. RS: DMS 3374 (DACB).

THELYPTERIDACEAE Ching ex Pic. Serm.

Pronephrium lakhimpurensense (Rosenst.) Holttum, Blumea 20(1): 110. 1972. *Dryopteris lakhimpurensensis* Rosenst. Herb, commonly occur in shady side of hill. RS: DMS 2755 (DACB).

Trigonospora calcarata (Blume) Holttum, Reinwardia 8: 506. 1974. Herb, commonly occur in shady place of forest bed. RS: Sayedur 3713 (DACB).

Trigonospora ciliata (Wall. ex Benth.) Holttum, Blumea 19(1): 29. 1971. *Aspidium ciliatum* Wall. ex Benth. Herb, commonly occur in shady place of forest bed. RS: DMS 2294 (DACB).

Macrothelypteris torresiana (Gaudich.) Ching, Acta Phytotax. Sin. 8(4): 310. 1963. *Lastrea setigera* Bedd. Herb, commonly occurs in shady place of forest bed and side of hill. RS: Sayedur 3715 (DACB).

Thelypteris nudata (Roxb.) C.V. Morton, Contr. U.S. Natl. Herb. 38(7): 352 1974. *Pronephrium nudatum* (Roxb.) Holttum. Herb, occasionally occur in side of hill. RS: DMS 2373(DACB).

TECTARIACEAE Panigrahi

Tectaria heterosora Ching, Sinensia 2: 29. 9. 1931. Fern, occasionally occur in shady place of forest near stream, chorra and side of hill. RS: DMS 2344, 2703 (DACB).

Tectaria heterocarpa C.V. Morton, Contr. U.S. Natl. Herb. 38: 270. 1973. Herb, occasionally occur in shady place of forest near stream and side of hill. RS: Sayedur 3714 (DACB).

Tectaria paradoxa (Fee) Sledge, Kew Bull. 27(3): 413. 1972. *Tectaria fuscipes* (Wall. ex Bedd.) C. Chr. *Aspidium paradoxum* Fée, Mém. Foug. LN: *Jungli Dhekia*. Herb, commonly occurs in shady place of forest. RS: Sayedur 3718 (DACB).

HEMIONITIDACEAE Pic.Serm.

Hemionitis arifolia (Burm. f.) T. Moore, Index Fil. 114. 1859. *Hemionitis cordata* Hook. & Grev. Herb, rarely occur in shady place of hill slope. RS: DMS4140 (DACB).

GLEICHENIACEAE C.Presl

Dicranopteris linearis (Burm. f.) Underw., Bull. Torrey Bot. Club 34(5): 250. 1907. *Pteris platylata* Christenh. Herb, commonly occur in hill slope. RS: DMS3978 (DACB).

ATHYRIACEAE Alston

Allantodia aspera (Blume) Ching, Acta Phytotax. Sin. 9(1): 54. 1964. *Diplazium asperum* Blume. Herb, commonly occurs in shady place of forest bed and hill slope. RS: Sayedur 3709 (DACB).

Diplazium hirsutipes B.K. Nayar & S. Kaur, Companion Beddome's Handb. Ferns Brit. India 44. 1974. Herb, commonly occurs in shady place of forest bed and hill slope. RS: Sayedur 3712 (DACB).

LINDSAEACEAE Pic.Serm.

Sphenomeris chinensis (L.) Maxon, J. Wash. Acad. Sci. 3(5): 144. 1913. *Microlepia chinensis* (L.) Mett. Herb, commonly occur in shady place of forest hill slope. RS: Sayedur 3709 (DACB).

Odontosoria chinensis (L.) J. Sm., Bot. Voy. Herald 430. 1857. Herb, commonly occurs in shady place of forest hill slope. RS: DMS 4182 (DACB).

DENNSTAEDTIACEAE Lotsy

Microlepia hancei Prantl, Bot. Gart. Breslau 1: 35. 1892. Herb, commonly occur in shady place of forest bed and hill slope. RS: DMS 2293 (DACB).

GYMNOSPERMS

GNETACEAE

Gnetum montanum Markgr., Bull. Jard. Bot. Buitenzorg 3, 10: 466. 1930. Woody climber, very rarely occurs in forest thickets ascending with long tree trunk. Fr. & fr.: February-June. Use: Fruits edible. RS: DMS 4025 (DACB).

LILIOPSIDA (MONOCOTS)

ARECACEAE C.H. Schultz-Schultzen.

Calamus longisetus Griff., Calcutta J. Nat. Hist. 5: 36. 1845. *Calamus tigrinus* Kurz. LN: *Uddumbet*. Shrub, occasionally occurs in deep forests; planted also. Fl. & fr.: October-June. Use: Walking sticks, bird-trap, furniture frame. RS: DMS 2808 (DACB)

Calamus tenuis Roxb., Fl. Ind. 3: 780. 1832. LN: *Jali bet*. Climbing shrub, commonly occurs in forest beds and thickets; planted also. Fl. & fr.: July-April. Use: Fruit edible, basket, mat, chair and furniture RS: DMS 2763 (DACB).

Calamus viminalis Willd., Sp. Pl. 2: 203. 1799. *Calamus litoralis* Blume. LN: *Bara bet*. Shrub, occasionally occurs in forest thickets; planted also. Fl. & fr.: Through the year. Use: Walking sticks, making fence and furniture. RS: DMS 2763 (DACB). **Fig. 11.**

Caryota mitis Lour., Fl. Cochinch. 697. 1790. LN: *Maitagota*. Shrub, occasionally grows on hill slope. Fl. & fr.: April-September. Use: Ornamental. RS: DMS 2353 (DACB).

Caryota urens L., Sp. Pl. 2: 1189. 1753. LN: *Chau, Chau gota*. Palm tree, occasionally occurs in forest hill. Fl. & fr.: April-September. Use: Fiber is used for making ropes and as drink. RS: DMS 3310 (DACB).

Cocos nucifera L., Sp. Pl. 1188. 1753. *Cocos indica* Royle. LN: *Narikel*. Tree, planted. Fl. & fr.: March-September. Use: Fruit edible, Oil. RS: DMS 2763 (DACB).

Daemonorops jenkinsiana (Griff.) Mart., Hist. Nat. Palm. 3: 327. 1853. *Calamus margaritae* Hance. LN: *Golla bet*. Shrub, occasionally occurs in forest thickets and planted also. Fl. & fr.: July-April. Use: Furniture. RS: DMS 3461 (DACB). **Fig. 15.**

Livistona jenkinsiana Griff., Calcutta J. Nat. Hist. 5: 334. 1845. *Saribus jenkinsii* (Griff.) Kuntze. LN: *Chaiti pata*. Tree, very rarely occurs in forest trail. Fl. & fr.: August-April. Use: Basket, Mat, Chair and furniture. RS: DMS 3351 (DACB).

Pinanga gracilis Blume, Rumphia 2: 77. 1839. *Areca gracilis* Buch.-Ham. LN: *Ram gua*. Shrub, occasionally occurs in forest bed mainly wet places. Fl. & fr.: June- January. Use: Ornamental. RS: DMS 2228 (DACB).

Wallichia caryotoides Roxb., Pl. Coromandel 3: 91. 1820. *Harina caryotoides* (Roxb.) Buch.-Ham. LN: *Belpata, Chilpata*. Shrub, rarely occurs in deep forest near chora. Fl. & fr.: July-April. Use: Ornamental. RS: DMS 3344, 4050 (DACB).

PANDANACEAE R.Br.

Pandanus odorifer (Forssk.) Kuntze, Revis. Gen. Pl. 2: 737. 1891. *Pandanus fascicularis* Lam. LN: *Keya Kanta, Bara Keya*. Shrub, occasionally occurs in forest trail near streams. Fl. & fr.: May-October. RS: DMS 3244, 3279 (DACB). **Fig. 36.**

ARACEAE A.Juss.

Aglaonema hookerianum Schott., Bonplandia (Hannover) 7: 30. 1859. *Aglaonema clarkei* Hook. f. LN: *Harina sak*. Perennial herb, commonly occurs in deep forest mainly shady areas. Fl. & fr.: June-July. Use: Ornamental. RS: DMS 2707 (DACB).

Alocasia acuminata Schott, Bonplandia (Hannover) 7: 28. 1859. LN: *Bannyo kachu*. Annual herb, occasionally occurs in forest beds and hill slopes. Fl. & fr.: May-August. RS: DMS 3470 (DACB).

Colocasia esculenta (L.) Schott, Melet. Bot. 18. 1832. *Arum chinense* L. LN: *Mukhikachu*. Annual herb, occasionally occurs in forest thickets. Fl. & fr.: May-October. Use: Vegetable. RS: DMS 3471 (DACB).

Homalomena aromatica (Roxb. ex Sim) Schott, Melet. Bot. 20. 1832. *Calla aromatica* (Spreng.) Roxb. LN: *Gandho-kachu*. Annual herb, commonly occurs in forest thickets. Fl. & fr.: June-September. Use: Medicine, ornamental. RS: DMS 2741 (DACB).

Lasia spinosa (L.) Thw., Enum. Pl. Zeyl. 336. 1864. *Lasia aculeata* Lour. LN: *Kanta-kachu*. Annual herb, occasionally occurs in forest thickets near water bodies. Fl. & fr.: January-November. Use: Medicine and vegetable. RS: DMS 2338 (DACB).

Pothos scandens L., Sp. Pl. 968. 1753. *Pothos angustifolius* (Raf.) C. Presl. LN: Sunat, Sundad, Batilata. Epiphytic creeping herb, occasionally occurs on tree trunk. Use: Medicine. Fl. & fr.: January-December RS: DMS 2705 (DACB).

Rhaphidophora glauca (Wall.) Schott, Bonplandia (Hannover) 5: 45. 1857. *Scindapsus glaucus* (Wall.) Schott. LN: *Fidoca*. Herb, commonly occurs in forest beds. Fl. & fr.: May-November. Use: Ornamental. RS: DMS 2279, 4082, 3446 (DACB).

Rhaphidophora hongkongensis Schott, Bonplandia (Hannover) 5: 44 1857. Perennial herb, occasionally occurs in hill slopes and on tree trunk. Use: Ornamental. RS: DMS 2387 (DACB).

Rhaphidophora hookeri Schott, Prodr. Syst. Aroid. 381. 1860. Perennial climbing herb, commonly occurs in hill slopes, forest beds and on tree trunk. RS: DMS 2277 (DACB).

Stuednera colocacifolia K. Koch, Wochenschr. Gärtnerei Pflanzenk. 1862: 114. 1862. *Stuednera discolor* W. Bull. LN: *Ekdaijja-kachu*. Annual herb, very rarely occurs in deep forest mainly wet areas along water bodies. Fl. & fr.: April-May. Use: Medicine. RS: DMS 2832 (DACB).

Stuednera colocasiodes Hook.f., Fl. Brit. Ind. 6: 520. 1893. Perennial herb, very commonly occurs in hill slopes. Fl. & fr.: April-September. Use: Medicine. RS: DMS 2278 (DACB).

COMMELINACEAE R.Br.

Amischotolype mollissima (Blume) Hassk., Flora 46: 391. 1863. *Amischotolype glabrata* (Hassk.) Hassk. LN: *Molisima*. Perennial herb. Rarely occurs in hill slopes. Fl. & fr.: December-January. RS: DMS 2360 (DACB).

Amischotolype hookeri (Hassk.) H. Hara, in Fl. E. Himal. 399. 1966. LN: *Kanta-kachu*. Perennial herb, occasionally occurs in forest trail along stream. Fl. & fr.: Throughout the year. RS: DMS 4017 (DACB). **Fig. 4.**

Commelina diffusa Burm.f., Fl. Indica 18. 1768. *Commelina agraria* Kunth. Annual herb, commonly occurs in forest beds. Fl. & fr.: December-January. Use: Vegetable. RS: DMS 4115 (DACB).

Commelina erecta L., Sp. Pl. 41. 1753. *Commelina aethiopica* C.B. Clarke. LN: *Jata kanshira*. Annual herb, occasionally occurs in along forest trails. Fl. & Fr.: June-November. Use: Medicine & vegetable. RS: DMS 3333 (DACB).

Commelina longifolia Lam., Tabl. Encycl. 1: 129. 1791. *Commelina salicifolia* Roxb., Fl. Ind. 1: 176. 1820. LN: *Pani kanshira*. Annual herb. Commonly occurs in forest beds. Fl. & fr.: December-January. Use: Cattle fodder. RS: DMS 2385 (DACB).

Commelina paludosa Blume, Enum. Pl. Javae. 1: 2. 1827. LN: *Jata kanshira*. Annual herb, occasionally occurs along forest trails. Fl. & fr.: October-March. Use: Medicine & vegetable. RS: DMS 2346 (DACB).

Floscopa scandens Lour., Fl. Cochinch. 193. 1790. *Commelina cymosa* Blume. Perennial herb, rarely occurs in forest margins. Fl. & fr.: September-March. Use: Medicine. RS: DMS 2710 (DACB).

Murdannia loriformis (Hassk.) R.S.Rao & Kammathy, Bull. Bot. Surv. India 3: 393. 1962. *Aneilema angustifolium* N.E.Br. LN: *Lori murdan*. Annual herb, commonly occurs in forest beds and thickets. Fl. & fr.: August-November. RS: DMS 3343 (DACB).

Murdannia spirata (L.) G. Brückn., Nat. Pflanzenfam. ed. 2 15a: 173. 1930. *Commelina nana* Roxb. Annual herb, rarely occurs in shady and marsh places. Fl. & fr.: Throughout the year. RS: DMS 4143 (DACB).

Pollia miranda (H.Lév.) H.Hara, J. Jap. Bot. 59: 182. 1984. Perennial herb, occasionally occurs in forest bed near stream sides. Fl. & fr.: August-April. RS: DMS 4166 (DACB).

Pollia secundiflora (Blume) Bakh.f., Bekn. Fl. Java 211: 10. 1949. Perennial herb, occasionally occurs in forest beds near trails. Fl. & fr.: August-September. RS: DMS 2314 (DACB).

ERIOCAULACEAE Martinov

Eriocaulon cinereum R.Br. Prodr. Fl. Nov. Holl. 254. 1810. LN: *Pani-guccha*. Annual herb, rarely occurs in shallow and wet areas. Fl. & fr.: October-January. RS: DMS 3975 (DACB).

CYPERACEAE A.Juss.

Cyperus brevifolius (Rottb.) Hassk., Cat. Hort. Bot. Bogor. Alt.: 24. 1844. *Kyllinga brevifolia* Rottb. Herb, commonly occurs in forest beds. Fl. & fr.: Throughout the year. RS: DMS 2243 (DACB).

Cyperus cyperoides (L.) Kuntze, Revis. Gen. Pl. 3(2): 333. 1898. LN: Kusha. Perennial herb, occasionally occurs in forest beds. Fl. & fr.: Throughout the year. RS: DMS 2238, 2316 (DACB).

Cyperus haspan L., Sp. Pl.: 45. 1753. Annual herb, commonly occurs in forest beds. Fl. & Fr.: Throughout the year. RS: DMS 2242 (DACB).

Cyperus laxus Lam., Tabl. Encycl. 1: 146. 1791. *Cyperus diffusus* Vahl. Perennial herb, very commonly occurs in shady place of forest floor. Fl. & fr.: Throughout the year. Use: fodder. RS: DMS 3318, 4016 (DACB).

Cyperus pilosus Vahl., Enum. Pl. Obs. 2: 354. 1805. *Cyperus marginellus* Nees. LN: *Pasha kathai*. Perennial herb, occasionally occurs in forest beds. Fl. & fr.: Throughout the year. RS: DMS 3985 (DACB).

Diplacrum caricinum R.Br., Prodr. Fl. Nov. Holl. 241. 1810. *Scleria axillaris* Moon. Annual herb, rarely occurs in forest beds. Fl. & fr.: July-December. RS: DMS 3973 (DACB).

Fimbristylis rigidula Nees, Contr. Bot. India 99. 1834. *Fimbristylis hanceana* Boeckeler. LN: *Dula fimbry*. Annual herb, commonly occurs in forest beds. Fl. & fr.: Throughout the year. RS: DMS 2756 (DACB).

Scleria annularis Steud., Syn. Pl. Glumac. 2: 176. 1855. *Hypoporum annulare* Nees. Annual herb, occasionally occurs in forest beds. Fl. & fr.: October-March. RS: DMS 4015, 4074 (DACB).

Scleria oblata S.T. Blake ex J. Kern, Reinwardtia 6: 73. 1961. Perennial herb, occasionally occurs in forest beds. Fl. & fr.: Throughout the year. RS: DMS 2721 (DACB).

Scleria terrestris (L.) Fassett, Rhodora 26: 159. 1924. *Scleria elata* Thwaites, Enum. Perennial herb, occasionally occurs in forest trails. Fl. & fr.: March-August. RS: DMS 2331, 4110 (DACB).

POACEAE Barnhart

Acroceras tonkinense (Balansa) C.E. Hubb. ex Bor, Indian Forest Rec., Bot. n.s., 1: 78. 1938. *Acroceras sparsum* Stapf ex Ridl. LN: *Cerastonki*. Perennial herb, commonly occurs in forest beds. Fl. & Fr.: June-September. RS: DMS 2801 (DACB).

Bambusa balcooa Roxb., Fl. Ind. ed. 1832 2: 196. 1832. *Arundarbor balcooa* (Roxb.) Kuntze. LN: *Borakbash*. Tree, planted and naturalized. Fl. & fr.: Irregular. Use: House building & Fodder. RS: DMS 2251 (DACB).

Bambusa vulgaris Schrad., Coll. Pl. 2: 26. 1808. LN: *Joi Bansh*. Tree, planted and naturalized. Fl. & fr.: Irregular. Use: House building, young shoots are edible. RS: DMS 2349 (DACB).

Bambusa cacharensis R.B.Majumdar, Bull. Bot. Surv. India 25: 237. 1985. LN: *Betu Bansh*. Tree, planted and naturalized. Fl. & fr.: Irregular. Use: Roof construction. RS: DMS 2347(DACB).

Brachiaria distachya (L.) Stapf, Fl. Trop. AFl. 9: 565. 1919. *Digitaria distachya* (L.) Pers. LN: *Cori ghas*. Perennial herb, commonly grows on forest sides and beds. Fl. & fr.: November-March. Use: Fodder, soil binder. RS: DMS 2391(DACB).

Brachiaria kurzii (Hook.f.) A.Camus, Fl. Indo-Chine 7: 438. 1922. *Brachiaria lanceata* Ohwi. LN: *Kuroktighas*. Annual herb, occasionally occurs in forest beds and grassy hill slopes. Fl. & fr.: Throughout the year. Use: Fodder. RS: DMS 2369 (DACB).

Centotheca lappacea (L.) Desv., Nouv. Bull. Sci. Soc. Philom. Paris 2: 189. 1810. Perennial herb, very commonly occurs in shady moist places and grassy hill slopes. Fl. & fr.: June-September. Use: Fodder grass. RS: DMS 2709, 2816 (DACB).

Chrysopogon aciculatus (Retz.) Trin., Fund. Agrost.: 188. 1820. LN: *Prem-kanta*, *Chorkata*. Perennial herb, commonly occurs in forest margins. Fl. & fr.: Throughout the year. RS: DMS 3363 (DACB).

Cymbopogon citratus (DC.) Stapf, Bull. Misc. Inform. Kew 1906: 322. 1906. *Andropogon ceriferus* Hack. LN: *Thai grass*. Perennial herb, occasionally occurs in grassy hill slopes. Fl. & fr.: July-September. Use: Flavouring agent. RS: DMS 3418 (DACB).

Cyrtococcum patens var. **latifolium** (Honda) Ohwi, Acta Phytotax. Geobot. 11: 47. 1942. *Cyrtococcum accrescens* (Trin.) Stapf. Annual herb, commonly occurs on moist soil. Fl. & fr.: January-November. RS: DMS 2367 (DACB).

Dendrocalamus hamiltonii Nees & Arn. *ex* Munro, Trans. Linn. Soc. London 26: 151. 1868. LN: *Pecha Bansh*. Tree, occasionally occurs in moist places near hill slopes. Fl. & fr.: Irregular. Use: House building and basket. RS: DMS 3438 (DACB).

Eragrostis japonica (Thunb.) Trin., Acad. Imp. Sci. St.-Petersbourg, Sér. 6, Sci. Math. 1: 405. 1830. *Airopsis jubata* Griseb. LN: *Japanikoni*. Annual herb, commonly occurs in wet and low land areas. Fl. & fr.: August-December. RS: DMS 2824 (DACB).

Oplismenus burmanni (Retz.) P.Beauv. Ess. Agrostogr. 54, 168. 1812. Annual herb, commonly occurs in forest beds and thickets. Fl. & fr.: September-January. Use: Fodder. RS: DMS 3994 (DACB).

Oplismenus compositus (L.) P. Beauv., Ess. Agrostogr.: 54. 1812. Annual herb, commonly occurs in forest beds and thickets. Fl. & fr.: Throughout the year. Use: Fodder. RS: DMS 4163 (DACB).

Panicum atosanguineum Hochst. *ex* A.Rich., Tent. Fl. Abyss. 2: 375. 1850. Annual herb, commonly occurs in forest beds and thickets. Fl. & fr.: August-September. Use: Fodder. RS: DMS 2715, 2742 (DACB).

Panicum brevifolium L., Sp. Pl. 59. 1753. *Isachne biflora* (Lam.) C.Cordem. LN: *Panibrevi ghas*. Annual herb. Commonly grows on hill and near moist soil. Fl. & fr.: March-December. RS: DMS 2389 (DACB).

Panicum maximum Jacq., Icon. Pl. Rar. 1: 13. 1781. *Megathyrsus maximus* (Jacq.) B.K.Simon & Jacobs. LN: *Panicum ghas*. Perennial herb, commonly occurs on forest beds in scattered way. Fl. & fr.: August-December. Use: Medicine. RS: DMS 2799 (DACB).

Sacciolepis indica (L.) A. Chase, Proc. Biol. Soc. Wash. 21: 8. 1908. LN: *Kash, Kaichha*. Annual herb, occasionally occurs in moist and Swampy place. Fl. & fr.: May-December. Use: Cattle fodder. RS: DMS 2390 (DACB).

ZINGIBERACEAE Lindl.

Amomum dealbatum Roxb., Fl. Indica 1: 42. 1820. LN: *Sada tara; Taruko*. Perennial herb, rarely occurs in trail sides. Fl. & Fr.: May-January. Use: Medicine. RS: DMS 3262 (DACB).

Amomum koenigii J.F.Gmel., Syst. Nat. 2: 6. 1791. *Amomum corynostachyum* Wall. LN: *Tera*. Perennial herb, rarely occurs in trail sides. Fl. & fr.: April-August. RS: DMS 2318 (DACB).

Globba orixensis Roxb., Asiat. Res. 11: 358. 1810. LN: *Jhansi globba*. Annual herb, very commonly occurs in forest beds, thickest trail and stream sides. Fl. & fr.: May-August. Use: Ornamental. RS: DMS 2284, 4086, 2805 (DACB). **Fig. 17.**

Hedychium coccineum Buch.-Ham. ex Sm., Cycl. 17: 5. 1811. *Gandasulium angustifolium* (Roxb.) Kuntze. LN: *Bhui ada*. Annual herb, occasionally occurs in forest thickets. Fl. & fr.: June-November. Use: Ornamental. RS: DMS 3392, 4008 (DACB).

Larsenianthus careyanus (Benth.) W.J. Kress & Mood, PhytoKeys 1: 24. 2010. *Hitchenia careyana* Benth. Annual herb, occasionally occurs near trail in deep forest. Fl. & fr.: July-November. Use: Ornamental. RS: DMS 3371, 4152 (DACB). **Fig. 23.**

Zingiber roseum (Roxb.) Roscoe, Trans. Linn. Soc. London 8: 348. 1807. *Amomum roseum* Roxb. Annual herb, occasionally occurs in shady forest areas. Fl. & fr.: August-October. Use: Medicine. RS: DMS 2711(DACB).

Zingiber rubens Roxb., Asiat. Res. 11: 348. 1810. LN: *Murga gachh*. Annual herb, occasionally occurs in shady forest floors. Fl. & fr.: June-September. Use: Medicine. RS: DMS 3226 (DACB).

Zingiber zerumbet (L.) Roscoe ex Sm., Exot. Bot. 2: 105. 1806. LN: *Bon ada*. Annual herb, occasionally occurs in forest thickest mainly shady areas. Fl. & fr.: July-September. Use: Medicine; Ornamental. RS: DMS 3472 (DACB). **Fig. 49.**

COSTACEAE Nakai

Cheilocostus speciosus (J. König) C.Specht, Taxon 55: 159. 2006. *Costus speciosus* (J. König) Sm. LN: *Keumul, Kemul, Khustha*. Perennial herb, occasionally occurs in forest thickets. Fl. & fr.: September-December. Use: Medicine. RS: DMS 3240, 2283 (DACB).

MARANTACEAE Peterson

Phrynium imbricatum Roxb. Fl. Indica 1: 6. 1820. *Phrynium oliganthum* Merr. LN: *Pitali pata*. Annual herb, commonly occurs in deep shady forest near water bodies. Fl. & fr.: April-September. Use: Leaves used as wrapping materials. RS: DMS 2359 (DACB).

Stachyphrynium placentarium (Lour.) Clausager & Borchs., Kew Bull. 58: 672. 2003. *Phrynium parviflorum* Roxb. Perennial herb, very commonly occurs in shady and wet places. Fl. & fr.: March-November. Use: Leaves are used as wrapping materials. RS: DMS 3311 (DACB).

PONTEDERIACEAE Kunth

Monochoria hastata (L.) Solms in A.DC., Mon. Phan. 4: 523. 1883. *Carigola hastata* (L.) Raf. LN: *Boro Nukha*. Perennial herb, occasionally occurs in water bodies near chara. Fl. & Fr.: Throughout the year. Use: Cattle feed & Biofertilizer. RS: DMS 3396 (DACB).

Monochoria vaginalis (Burm.f.) C.Presl, Reliq. Haenk. 1: 128. 1827. *Boottia mairei* H.Lév., LN: *Noukha*. Perennial herb, occasionally occurs in water bodies near chara. Fl. & fr.: May-January. Use: Medicine. RS: DMS 4084 (DACB).

HAEMODORACEAE R.Br.

Peliosanthes teta Andr., Bot. Repos. 10. 605. 1810. *Peliosanthes altissima* Donn, LN: *Napigach*. Perennial herb, occasionally occurs in forest entrance area. Fl. & fr.: November-February. RS: DMS 3278 (DACB). **Fig. 37.**

LILIACEAE A.Juss.

Curculigo orchioides Gaertn., Fruct. Sem. Pl. 1: 63. 1788. *Curculigo malabarica* Wight. LN: *Talmuli*. Perennial herb, rarely occurs in forest beds mainly highland areas. Fl. & fr.: June-August. Use: Medicine. RS: DMS 3239 (DACB).

AGAVACEAE Endl.

Dracaena angustifolia (Medik.) Roxb., Hort. Bengal. 24. 1814. *Cordyline rumphii* Hook. LN: *Chikna drakan*. Shrub, occasionally occurs in shady and moist areas near streams. Use: Medicine. Fl. & fr.: November-March. RS: DMS 2731 (DACB).

Dracaena elliptica Thunb. & Dalm., *Dracaena* 6. 1808. *Calodracon sieboldii* Planch. LN: *Lamba drakan*. Shrub, occasionally occurs in moist shady areas near water courses. Use: Medicine. Fl. & fr.: November-March. RS: DMS 4022 (DACB).

Dracaena spicata Roxb., Fl. Indica ed. 1832, 2:157. 1832. *Dracaena wallichii* Kunth, LN: *Kado-drakan*. Shrub, rarely occurs in shady and moist places. Fl. & fr.: January-December. RS: DMS 2248 (DACB).

SMILACACE A.Vent.

Smilax roxburghiana Wall. *ex* A.DC, Rapp. [Not.] Pl. Rar. Genève 7: 314. 1836. *Smilax laurifolia* Roxb. LN: *Kumarilata*. Climber, occasionally occur in shady place of forest. Use: Medicine. Fl. & fr.: August-Novembe. RS: DMS 2716 (DACB).

Smilax ovalifolia Roxb., Fl. Ind. ed. 3: 794. 1832. *Smilax macrophylla* Roxb. LN: *Kumarilata*. Climber, occasionally occur in shady place of forest thickets. Use: Medicine. Fl. & fr.: November-March. RS: DMS 2401 (DACB).

Smilax perfoliata Lour., Fl. Cochinch. 622. 1790. *Smilax prolifera* Roxb. LN: *Kumarilata*. Climber, occasionally occur in shady place of forest thickets. Use: Medicine. Fl. & fr.: November-March. RS: DMS 3258 (DACB).

DIOSCOREACEAE R.Br.

Dioscorea bulbifera L., Sp. Pl. 1033. 1753. *Dioscorea latifolia* Benth. LN: *Amda Lata*, *Rata alu*. Climber, occasionally occurs in hill slopes. Fl. & fr.: June-October. Use: Vegetable. RS: DMS 2334 (DACB).

Dioscorea esculenta (Lour) Burkill, Gard. Bull. Straits Settl. 1: 369. 1917. *Dioscorea fasciculata* Roxb. LN: *Maitta-alu*, *Bon alu*. Climber, occasionally occurs in forest thickets along streams. Fl. & fr.: August-December. Use: *Tuber edible*. RS: DMS 2256 (DACB).

Dioscorea glabra Roxb., Fl. Indica ed. 3: 804. 1832. *Dioscorea hongkongensis* Uline *ex* R. Knuth. LN: *Shora-alu*. Climber, occasionally occurs in dried areas over bushes. Use: Tuber edible. Fl. & fr.: September-December. RS: DMS 4113(DACB).

Dioscorea hamiltonii Hook.f., Fl. Brit. India 6: 294. 1892. *Dioscorea persimilis* Prain & Burkill. LN: *Miltoni alu*. Climber, rarely occurs on bush and on tree trunk. Use: Tuber edible. Fl. & fr.: September-December. RS: DMS 42323 (DACB).

Dioscorea oppositifolia L., Sp. Pl.: 1033.1753. *Dioscorea opposita* Thunb. LN: *Cheena alu*. Climber, commonly occurs on bush and tree trunk. Fl. & fr.: August-December. Use: Tuber edible. RS: DMS 3324, 4052 (DACB).

Dioscorea hispida Dennst., Schlüssel Hortus Malab. 33. 1818. *Dioscorea hirsuta* Blume. LN: *Gach alu*. Climber, rarely occurs on forest bush. Fl. & Fr.: September-December. Use: Tuber poisonous, medicinal. RS: DMS 2345(DACB).

ORCHIDACEAE A.Juss.

Acampe ochracea (Lindl.) Hochr., Bull. New York Bot. Gard. 6: 270. 1910. Epiphytic perennial herb, rarely grows on tree trunk in forest. Fl. & fr.: April-June. Use: Ornamental & Medicine. RS: DMS 3466 (DACB).

Aerides odorata Lour., Fl. Cochinch. 2: 525. 1790. LN: *Sukhphulphul porgachha*. Epiphytic perennial herb, rarely grows on tree trunk in forest. Fl. & fr.: April-June. Use: Ornamental & Medicine. RS: DMS 3353 (DACB).

Gastrochilus inconspicuus (Hook.f.) Kuntze, Revis. Gen. Pl. 2: 661. 1891. Perennial herb, rarely occurs on tree trunk in forest. Fl. & fr.: October-November. Use: Ornamental. RS: DMS 3465 (DACB).

Rhynchostylis retusa (L.) Blume, Bijdr.: 286. 1825. *Aerides guttata* (Lindl.) Roxb. LN: *Shial leza pargacha*. Perennial herb, rarely occurs on tree trunk in forest. Fl. & fr.: May-July. Use: Ornamental & Medicine. RS: DMS 2408 (DACB).

Zeuxine nervosa (Wall. ex Lindl.) Benth. ex Trimen, Ceylon Branch Roy. Asiat. Soc. 9: 90. 1885. *Adenostylis formosana* (Rolfe) Hayata. LN: *Nervoxine orchid*. Terrestrial herb, occasionally grows on moist soil. Fl. & fr.: March-April. Use: Ornamental & Medicine. RS: DMS 2240 (DACB).

MAGNOLIOPSIDA (DICOTS)

MAGNOLIACEAE A.Juss.

Magnolia champaca (L.) Baill. ex Pierre, Fl. Forest. Cochinch. t. 3. 1880. *Michelia champaca* L. LN: *Swarna Champa, Chapa*. Evergreen trees, planted. Fl. & fr.: March-July. Use: Ornamental & timber. RS: DMS 2307 (DACB).

ANNONACEAE A.Juss.

Dasymaschalon longiflorum Finet & Gagnep., Bull. Soc. Bot. France 53(4): 143. 1906. *Desmos longiflorus* (Roxb.) Saff. LN: *Kulla*. Evergreen shrub, occasionally occurs in hilly slope. Fl. & fr.: October-April. RS: DMS 2403 (DACB).

Fissistigma polyanthum (Hook.f. & Thomson) Merr. Philipp. J. Sci. 15: 135. 1919. *Melodorum polyanthum* Hook. f. & Thomson. LN: *Thum Bheduli*. Small evergreen tree, occasionally occurs near stream. Fl. & fr.: April -June. RS: DMS 3243 (DACB).

Fissistigma wallichii (Hook.f. & Thomson) Merr. Philipp. J. Sci. 15: 137. 1919. LN: *Lichi Bheduli*. Evergreen shrub, occasionally occurs in shady places of forest. Fl. & fr.: February-August. RS: DMS 3335 (DACB).

Goniothalamus sesquipedalis (Wall.) Hook.f. & Thomson, Fl. Ind. 1: 108. 1855. *Guatteria sesquipedalis* Wall. LN: *Gonithal*. Evergreen shrub, rarely occurs in near hill slopes. Fl. & fr.: November-January. RS: DMS 3291 (DACB).

Goniothalamus cardiopetalus (Dalzell) Hook.f. & Thomson, Fl. Ind. 1: 107. 1855. Evergreen tree, occasionally occurs in forest thickets. Fl. & fr.: August-January. RS: DMS 2296 (DACB).

Milium globosa (DC.) G. Panigr. & Mishra, Taxon 33(4): 713. 1984. *Milium roxburghiana* Hook.f. & Thomson. LN: *Tasbi*. Small evergreen tree, very rarely occurs in shady place of forest near stream. Fl. & fr.: December-September. RS: DMS 4129 (DACB). **Fig. 29.**

LAURACEAE A.Juss.

Cinnamomum bejolghota (Buch.-Ham.) Sweet, Hort. Brit. ed. 1: 344. 1826. LN: *Ram tejmeta*. Evergreen tree, occasionally occurs along with stream. Fl. & fr.: January-July. Use: Medicine. RS: DMS 4135 (DACB).

Litsea clarkei Prain, Bengal Pl. 2: 903. 1903. Small evergreen tree, very rarely occurs in deep forest area. Fl. & fr.: January-July. Use: Medicine. RS: DMS 4120 (DACB).

Litsea monopetala (Lour.) C.B. Rob., Syn. Pl. 2: 4. 1807. LN: *Huoria*. Evergreen tree, occasionally occurs in scrub forest. Fl. & fr.: March-November. Use: Medicine. RS: DMS 4065 (DACB).

CHLORANTHACEAE R.Br.

Chloranthus elatior Link, Enum. Hort. Berol. Alt. 1: 140. 1821. *Chloranthus erectus* (Buch.-Ham.) Verdc. Evergreen shrubs, occasionally occurs in shady and moist places. Fl. & fr.: Throughout the year. Use: Medicine & Ornamental. RS: DMS 2388 (DACB).

PIPERACEAE Giseke

Piper attenuatum Buch.-Ham. *ex* Miq., Syst. Piperac. 306. 1843. Shrub, occasionally occurs in shady forest area near streams. Fl. & fr.: August-April. Use: Medicine. RS: DMS 4049 (DACB).

Piper nigrum L., Sp. Pl. 28. 1753. LN: *Gol morich*, *Kalo morich*. Woody climber, commonly occurs in shady forest areas. Fl. & fr.: August-December. Use: Spices. RS: DMS 3309 (DACB). **Fig. 40.**

Piper ppepuloides Roxb., Fl. Ind. 1: 159. 1820. LN: *Pipal*. Woody climber, commonly occurs in shady area of forest thicket. Fl. & fr.: July-December. Use: Medicine. RS: DMS 3309 (DACB).

Piper sylvaticum Roxb. Fl. Ind., ed. 1820 1: 158. 1820. LN: *Bon pan*, *Pahari pipul*. Climber, very commonly occurs in hill slopes. Fl. & fr.: May-September. Use: Spices. RS: DMS 2255 (DACB).

Peperomia pellucida (L.) Kunth, Nov. Gen. Sp. 1: 64. 1816. LN: *Lucipata*, *Peperomia*. Annual herb, occasionally occurs in hill slope and forest bed. Fl. & fr.: July-September. Use: Vegetable, medicine. RS: DMS 3254 (DACB).

ARISTOLOCHIACEAE A.Juss.

Aristolochia tagala Cham., Linnaea 7: 207. 1832. LN: *Boro iswarmul*. Woody Climber, commonly occurs on bush. Fl. & fr.: April-January. Use: Medicine. RS: DMS 2732, 4176 (DACB).

RANUNCULACEAE A.Juss.

Narvelia zeylanica (L.) DC., Syst. Nat. 1: 167. 1817. *Atragene zeylanica* L., LN: *Chagul bati*. Woody climber, rarely occurs in forest margin. Fl. & fr.: October-February. RS: DMS 3380 (DACB).

MENISPERMACEAE A.Juss.

Cissampelos glaberrima A.St.-Hil., Fl. Bras. Merid. 1: 57. 1825. *Cissampelos parriera* Vell. Climber, occasionally occurs in scrub forest. Fl. & fr.: February-July. Use: Medicine. RS: DMS 3437, 4072 (DACB).

Pycnarrhena pleniflora Miers, Ann. Mag. Nat. Hist. 20: 12. 1867. LN: *Holok lata*. Scandent shrub, occasionally occurs in forest thickets. Fl. & fr.: March-April. RS: DMS 2820 (DACB). **Fig. 43.**

Stephania rotunda Lour., Fl. Cochinch.: 608. 1790. *Stephania glabra* (Roxb.) Miers. LN: *Thanda manik*. Soft woody climber, occasionally occurs in scrub forest. Fl. & fr.: May-August. Use: Medicine. RS: DMS 2306 (DACB).

Tinospora crispa (L.) Hook.f. & Thomson, Fl. Indica 1: 183. 1855. LN: *Gulancha*. Woody climber, commonly occurs in scrub forest. Fl. & fr.: January-June. Use: Medicine. RS: DMS 2826 (DACB).

Tinospora sinensis (Lour.) Merr., Sunyatsenia 1(4): 193. 1934. LN: *Padma Gulancha*. Climber, commonly occurs in scrub forest. Fl. & fr.: January-June. Use: Medicine. RS: DMS 2826 (DACB).

SABIACEAE Blume

Sabia lanceolata Colebr., Trans. Linn. Soc. London 12: 355. 14. 1819. LN: *Sajbalat*. Evergreen woody climber, occasionally occurs in forest thickets. Fl. & fr.: October-April. RS: DMS 3328, 4019 (DACB).

MORACEAE Trinius

Artocarpus chama Buch.-Ham., Mem. Wern. Nat. Hist. Soc. 5: 331. 1826. LN: *Chambal*, *Chapalish*, *Kathalicham*. Deciduous trees, commonly occurs in forest. Fl. & fr.: April-August. Use: Fruit edible, timber, WS. RS: DMS 3462 (DACB).

Artocarpus heterophyllus Lam., Encycl. 3: 29 1789. LN: *Kathal*. Deciduous trees, planted and naturalized in forest. Fl. & fr.: April-August. Use: Fruit edible, timber, WS. RS: DMS 3727 (DACB).

Ficus ampelas Burm.f., Fl. Ind. 226. 1768. LN: *Am-bot*. Small deciduous tree, commonly occurs in forest thickets. Use: Fire-wood & Wild life supportive. Fl. & fr.: April-August. RS: DMS 2376 (DACB).

Ficus auriculata Lour., Fl. Cochinch. 666. 1790. *Ficus roxburghii* Steud. LN: *Bara Dumur*, *Urbul*. Deciduous tree, occasionally occurs in deep forest and open moist soil. Fl. & fr.: March-May. Use: Fruit, fodder. RS: DMS 2835 (DACB).

Ficus hirta Vahl, Enum. Pl. 2: 201. 1805. *Ficus setosa* Blume. LN: *Khuskadumur*, *Dangra*. Small deciduous tree, occasionally occurs in hill slopes. Fl. & fr.: April-September. Use: Fire-wood, WS. RS: DMS 2211 (DACB). **Fig. 18.**

Ficus lamponga Miq., Fl. Ned. Ind., Eerste Bijv. 431. 1861. LN: *Papri-dumur*, *Jir*. Small deciduous tree, rarely occurs in shady place. Fl. & fr.: August-April. Use: Fire-wood & Wild life supportive. RS: DMS 2227 (DACB).

Ficus nervosa B.Heyne ex Roth, Nov. Pl. Sp. 388. 1821. *Ficus undulata* Buch.-Ham. LN: *Papri dumur*. Small evergreen tree, rarely occurs in forest thickets. Fl. & fr.: October-April. Use: Fire-wood & Wild life supportive. RS: DMS 2787 (DACB).

Ficus pleurocarpa F.Muell., Fragm. 8: 246. 1874. LN: *Papri dumur*. Shrub, rarely occurs in scrub forests. Fl. & fr.: May-December. Use: Fire-wood. RS: DMS 4043 (DACB).

Ficus sagittata Koenig ex Vahl, Symb. Bot. 1: 83. 1790. LN: *Karat-bot*, *Lati dhumur*. Evergreen climber, commonly occurs in hill slope. Fl. & fr.: December-May. RS: DMS 2753 (DACB).

Ficus variegata Blume, Bijdr.: 459. 1825. LN: *Rongila dumur*. Deciduous tree, rarely occurs in forest thickets. Fl. & fr.: December-March. Use: Fire-wood & Wild life supportive. RS: DMS 4155 (DACB).

Streblus asper Lour., Fl. Cochinch. 1: 615. 1790. LN: *Asshaora*, *Harbi*, *Seora*. Evergreen tree, commonly occurs in open places, forest thickets. Fl. & fr.: February-June. Use: Fire-wood & Medicine. RS: DMS 3272 (DACB).

URTICACEAE A.Juss.

Boehmeria glomerulifera Miq. in Zoll., Syst. Verz. India Archip 1854. *Urtica malabarica* Wall. LN: *Borthurthuri*. Evergreen shrub, commonly occurs in moist shady places throughout the forest. Fl. & fr.: January-March. Use: Fibre. RS: DMS 2745 (DACB).

Boehmeria macrophylla Hornem., Hort. Bot. Hafn. 2: 890. 1815. *Boehmeria canescens* Wedd. LN: *Ulichara*. Perennial herb, very commonly occurs in secondary forests, thickets, roadsides, along streams. Fl. & fr.: September-December. RS: DMS 3312 (DACB). **Fig. 8.**

Dendrocnide sinuata (Blume) Chew, Gard. Bull. Singapore 21: 206. 1965. *Urtica sinuata* Blume. LN: *Laua-Chutra*, *Bangaldandi*. Evergreen trees, commonly occurs in moist shady places along roads and tracks. Fl. & fr.: June-February. Use: Fibre. RS: DMS 2834 (DACB). **Fig. 16.**

Elatostema papillosum Wedd., Arch. Mus. Hist. Nat. 9: 327. 1856. LN: *Shilajar*. Perennial herb, commonly occurs on moist soil. Fl. & fr.: June-November. RS: DMS 2213 (DACB).

Oreocnide integrifolia (Gaudich.) Miq., Ann. Mus. Bot. Lugduno-Batavi 4: 306. 1869. LN: *Ban-katkora*, *Ban-reha*. Evergreen tree, occasionally occurs in forest valleys, along streams. Fl. & fr.: March-October. RS: Syedur 3731 (DACB).

Pilea anisophylla (Hook.f.) Wedd., Arch. Mus. Hist. Nat. 193. 1856. *Pilea secunda* S.S. Chien. LN: *Animarichha*. Evergreen perennial stoloniferous herbs, occasionally occurs in hilly forests, along streams. Fl. & fr.: June-December. RS: DMS 3409 (DACB).

Pilea glaberrima Blume, Mus. Bot. 2(4): 54. 1856. *Pilea smilacifolia* Wedd. LN: *Lotamaricha*. Perennial herbs, very commonly occurs in shady and wet places along streams. Fl. & fr.: May-November. RS: DMS 2221, 2822, 3271 (DACB). **Fig. 39.**

Pouzolzia zeylanica (L.) Benn., Pl. Jav. Rar.: 67. 1838. *Boehmeria alienata* Willd. LN: *Kullakuri*. Perennial herbs, commonly occurs in open dump forests and wet places along grasslands. Fl. & fr.: June-November. RS: DMS 2239, 4048 (DACB).

AMARANTHACEAE A.Juss.

Cyathula prostrate (L.) Blume, Bijdr. 549. 1826. LN: *Shyontula*. Annual herb, very commonly occurs in forest bed. Fl. & fr.: September-November. Use: Medicine. RS: DMS 3259 (DACB).

POLYGALACEAE Hoffmanns & Link

Polygala chinensis L., Sp. Pl. 2: 704. 1753. LN: *Meradu*. Perennial herb, rarely occurs on Forest edges. Fl. & fr.: April-January. Use: Medicine. RS: DMS 4147 (DACB).

POLYGONACEAE A.Juss.

Amplygonum chinense (L.) Lindl., Edwards's Bot. Reg. 24: 62. 1838. LN: *Mohicharan shak*. Perennial herb, occasionally occurs in marshy places. Fl. & fr.: October-March. Use: Vegetable. RS: DMS 3991 (DACB).

Persicaria hydropiper (L.) Delarbre, Fl. Auvergne ed. 2: 518. 1800. *Polygonum hydropiper* L. LN: *Bishkatali*. Annual herb, very commonly occurs in shady places along with water bodies. Fl. & fr.: August-April. Use: Medicine. RS: DMS 3229, 3301 (DACB).

Polygonum posumbu Buch.-Ham. ex D. Don, Prodr. Fl. Nepal. 71. 1825. LN: *Janngli Bashkatali*. Perennial herb, very commonly occurs in the moist forest floor. RS: DMS 3331, 3990, 2216 (DACB).

DILLENIACEAE Salisb.

Dillenia indica L., Sp. Pl. 535. 1753. LN: *Chalta*. Evergreen tree, occasionally occurs in forest beds. Fl. & fr.: May-February. Use: Vegetable, Fruit edible. RS: DMS 3340 (DACB).

Dillenia pentagyna Roxb., Pl. Coromandel 1: 21. 1795. *Dillenia augusta* Roxb. LN: *Bonchalta*. Deciduous tree, occasionally occurs in moist shady places. Fl. & fr.: January-June. Use: Medicine, Timber, WS. RS: DMS 3345 (DACB).

DIPTEROCARPACEAE Blume

Dipterocarpus turbinatus C.F. Gaertn, Suppl. Carp. 3: 51. 1805. LN: *Teli garjan*, *Kali garjan*. Deciduous tree, planted and naturalized. Fl. & fr.: March-June. Use: Timber. RS: DMS 2232 (DACB).

THEACEAE Mirb.

Camellia caudata Wall., Pl. Asiat. Rar. 3: 36. 1832. LN: *Fulket*. Evergreen tree, rarely occurs in deep forest. Fl. & fr.: September-April. RS: DMS 4122 (DACB).

Camellia sinensis (L.) Kuntze, Trudy Imp. S.-Peterburgsk. Bot. Sada 10: 195. 1887. LN: *Cha*, *Cha pata*. Shrub, planted. Fl. & fr.: June-January. Use: Popular drink. RS: DMS 4137 (DACB).

Schima wallichii Choisy, Syst. Verz. 144. 1854. LN: *Kanok*, *Mon champa*. Evergreen tree, rarely occurs in hilly area of forest. Fl. & fr.: March-September Use: Timber. RS: DMS 3420 (DACB). **Fig. 45.**

ACTINIDIACEAE Hutch.

Saurauia punduana Wall., Pl. Asiat. Rar. 2: 40. 1830. LN: *Dluk*. Deciduous tree, occasionally occurs in hill slope along stream. Fl. & fr.: March-October. Use: Fire-wood. RS: DMS 3322, 4030 (DACB).

CLUSIACEAE Lindl.

Garcinia cowa Roxb. ex Choisy, Prodr. 1: 561. 1824. LN: *Kaofal*. Evergreen tree, rarely occurs in shady area of forest along the streams. Fl. & fr.: February-August. Use: Fruit & Wild life supportive. RS: DMS 3302 (DACB).

Garcinia morella (Gaertn.) Desr., Encycl. 3: 701 1792. LN: *Sundar Kau*, *Gutta gam*. Evergreen small tree, rarely occurs in shady area of forest along the streams. Fl. & fr.: November-August. Use: Timber, gum, oil, fuel & medicine. RS: DMS 3302 (DACB).

Garcinia xanthochymus Hook. f. ex T. Anders. J.D. Hooker, Fl. Brit. India 1: 269. 1874. LN: *Dephal*. Evergreen tree, rarely occurs in shady area of forest along the streams. Fl. & fr.: April-October. Use: Fruit, timber, fuel & medicine. RS: DMS 3300 (DACB).

Hypericum japonicum Thunb., Syst. Veg. ed. 14. 702. 1784. LN: *Japani hyper*. Annual herbs, occasionally occurs on forest bed along the streams. Fl. & fr.: March-November. RS: DMS 2727 (DACB).

ELAEOCARPACEAE DC.

Elaeocarpus floribundus Blume, Bijdr.: 120. 1825. LN: *Jalpai*. Evergreen trees, lanted. Fl. & fr.: March-December. Use: Fruit. RS: DMS 2252 (DACB).

TILIACEAE A.Juss.

Grewia nervosa (Lour.) Panigrahi, Taxon 34: 702. 1985. *Microcos paniculata* L. LN: *Pichandi*, *Asar*. Evergreen Shrub, commonly occurs in forest thickets. Fl. & fr.: Throughout the year. Use: Fire-wood. RS: DMS 4054 (DACB).

Triumfetta rhomboidea Jacq., Syst. Pl. 22. 1760. LN: *Bon okra*. Evergreen shrub, commonly occurs in sunny forest edges. Fl. & fr.: August-January. RS: DMS 3332 (DACB).

STERCULIACEAE Salisb.

Byttneria aspera Collebr. ex Wall., Fl. Ind. 2: 383. 1824. LN: *Khata fall lata*. Climber., occasionally occurs in forest thickets. Fl. & fr.: April-December. Use: Hair washing. RS: DMS 4097(DACB).

Melochia corchorifolia L., Sp. Pl. 675. 1753. LN: *Tiki-okra*. Annual herb, occasionally occurs in forest thickets. Fl. & fr.: March-June. Use: Medicine. RS: Syedur 3701 (DACB).

Pterospermum acerifolium (L.) Willd., Sp. Pl. 3: 729. 1800. LN: *Kanak-champa, Moos*. Evergreen tree, occasionally occurs in hill slopes, open places and near stream. Fl. & fr.: March-April. Use: Ornamental & Medicine. RS: DMS 4005 (DACB).

Sterculia lanceolata var. **coccinea** (Jack) Phengklai, Thai Forest Bull., Bot. 23: 99. 1995. *Sterculia hamiltonii* (Kuntze) Adelb. LN: *Siduri phal gach*. Semi-evergreen tree, occasionally occurs in scrub forests near stream and hill slopes. Fl. & fr.: April-October. Use: Fire-wood. RS: DMS 3419, 4169 (DACB).

BOMBACACEAE Kunth

Bombax ceiba L., Sp. Pl. 511. 1753. *Bombax aculeatum* L. LN: *Shimul*. Deciduous tree, planted. Fl. & fr.: January-May. Use: Medicine, Fibre.

MALVACEAE A.Juss.

Hibiscus surattensis L., Sp. Pl. 696. 1753. LN: *Lata mesta*. Shrub, occasionally occurs in shady places of forest. Fl. & fr.: September-February. Use: Fibre, Medicine. RS: DMS 4028 (DACB).

Sida rhombifolia L., Sp. Pl. 684. 1753. *Sida compressa* Wall. LN: *Lal Berela*. Perennial herb, occasionally occurs in open places. Fl. & fr.: July-December. Use: Medicine. RS: DMS 3261 (DACB).

Urena lobata L., Sp. Pl. 692. 1753. LN: *Congo-pat, Ban-okhra*. Shrub, commonly occurs in all around forest trail and edges. Fl. & fr.: Throughout the year. Use: Fibre & Medicine. RS: DMS 4041 (DACB).

LECYTHADACEAE A.Rich.

Careya arborea Roxb., Pl. Coromandel 3: 14. 1819. *Careya sphaerica* Roxb., LN: *Kumbi, Biripata*. Deciduous tree, planted. Fl. & fr.: May-July. Use: Fruit edible, wrapping Bidi.

FLACOURTIACEAE DC.

Casearia vareca Roxb., Fl. Ind. 2: 418. 1824. LN: *Bon-jhalukia*. Small evergreen tree, occasionally grows in forest thicket. Fl. & fr.: May-February. Use: Medicine. RS: DMS 3381, 4168 (DACB). **Fig. 13.**

Flacourtia indica (Brum.f.) Merr., Herb. Amboin. 377 1917. LN: *Boichi*. Shrub, occasionally grows in forest thicket. Fl. & fr.: May-February. Use: Fruit edible & Wild life supportive. RS: DMS 4133 (DACB).

CUCURBITACEAE A.Juss.

Gymnopetalum chinense (Lour.) Merr. Philipp. J. Sci. 15: 256. 1919. *Gymnopetalum cochinchinense* (Lour.) Kurz. LN: *Bati jhinga*. Climber. Rarely occurs in scrub forests. Fl. & fr.: July-December. Use: Medicine & Poisonous. RS: DMS 3423 (DACB).

Solena amplexicaulis (Lam.) Gandhi, Fl. Hassan District 179. 1976. *Melothria heterophylla* (Lour.). LN: *Rakhal gota, Rakhal sasha*. Perennial climber, occasionally occurs in forest thickets. Fl. & fr.: April-September. Use: Medicine. RS: Syedur 3703 (DACB).

Thladiantha cordifolia (Blume) Cogn., Monogr. Phan. 3: 424. 1881. Annual climber, occasionally occurs in forest thickets. Fl. & fr.: May-November. RS: DMS 4091 (DACB).

Trichosanthes tricuspidata Lour., Fl. Cochinch. 2: 589. 1790. LN: *Makal phal*. Annual climber, commonly associated with other plants. Fl. & fr.: July-December. Use: Medicine Poisonous & RS: DMS 3250 (DACB).

BEGONIACEAE C. Agardh

Begonia annulata K.Koch, Berliner Allg. Gartenzeitung 1: 76 1837. *Begonia barbata* Wall. ex A.DC. LN: *Ganibata*. Perennial herb, occasionally occurs in hill slopes and near stream along moist shady areas. Fl. & fr.: March-September. Use: Vegetable. RS: DMS 2405 (DACB).

Begonia silhetensis (A.DC.) C.B. Clarke, Fl. Brit. India 2: 636. 1879. *Casparya silhetensis* A.DC., L.N. *Goni kanti*. Perennial herb, commonly occurs in hill slopes and near stream along moist shady areas. Fl. & fr.: March-September. Use: Vegetable & Indoor ornamental. RS: DMS 2406 (DACB). **Fig. 6.**

MYRSINACEAE R.Br.

Ardisia solanacea (Poir.) Roxb., Pl. Coromandel 1: 27. 1795. LN: *Bon-Jam*. Shrub. Occasionally occurs in scrub forests and foot hills. Fl. & fr.: January-May. Use: Medicine. RS: DMS 3321 (DACB). **Fig. 5.**

Embelia parviflora Wall. ex A.DC., Trans. Linn. Soc. London 17: 130. 1834. *Embelia disticha* H.R. Fletcher, LN: *Parvibela*. Shrub, rarely occurs in scrub forests. Fl. & fr.: May-November. Use: Wildlife supportive. RS: DMS 3235, Saydur 3738 (DACB).

Maesa chisia Buch.-Ham. ex D. Don, Prodr. Fl. Nepal. 148. 1825. LN: *Bon-Jam*. Shrub, commonly occurs in scrub forests. Fl. & fr.: January-November. Use: Medicine & Vegetable. RS: DMS 3321 (DACB).

Maesa indica (Roxb.) A.DC., Trans. Linn. Soc. London 17(1): 134. 1834. *Baeobotrys indica* Roxb. LN: *Sesui, Sirkhi*. Shrub, commonly occurs in dense forest. Fl. & fr.: April-January. Use: Medicine & Fire-wood. RS: DMS 4092 (DACB).

Maesa ramentacea (Roxb.) A.DC., Prodr. 1844. LN: *Noa-maricha, Bol-jakhandok*. Shrub, occasionally occurs in scrub forest near stream. Fl. & fr.: January-November. Use: Medicine. RS: DMS 3281 (DACB).

MIMOSACEAE R.Br.

Acacia auriculiformis Benth., London J. Bot. 1: 377. 1842. LN: *Akashmoni*. Evergreen tree, planted. Fl. & fr.: June-February. Use: Ornamental; Timber.

Acacia pennata (L.) Willd., Sp. Pl. 4: 1090. 1806. *Mimosa pennata* L. LN: *Bora lata, Kuchui*. Scandent shrub, occasionally occurs in deep forest near stream. Fl. & fr.: May-February. Use: Medicine, Vegetable. RS: DMS 3403 (DACB).

Albizia lebbeck (L.) Benth., London J. Bot. 3: 87. 1844. *Mimosa lebbeck* L. LN: *Kala-koroi, Sirish*. Deciduous tree, planted. Fl. & fr.: April-December. Use: Timber.

Albizia lucidior (Steud.) I.C. Nielsen, Fl. Pl. Nepal 2: 104. 1979. LN: *Motor koroi, Mocha*. Deciduous tree, planted. Fl. & fr.: April-October. Use: Timber.

Albizia procera (Roxb.) Benth., London J. Bot. 3: 89. 1844. LN: *Sil koroi, Sada koroi*. Deciduous tree, planted. Fl. & fr.: April-October. Use: Timber.

Calliandra umbrosa (Wall.) Benth., Trans. Linn. Soc. 30: 537. 1875. LN: *Chotto Betmara*. Deciduous tree, commonly occurs in forest beds. Fl. & fr.: June-February. Use: Fire-wood. RS: DMS 3983 (DACB).

Mimusa pudica L., Sp. Pl. 1: 518. 1753. LN: *Lal lajjabati*. Annual herb, occasionally occurs in sunny places of forest edges. Fl. & fr.: Throughout the year. Use: Medicine, Soil Binder. RS: DMS 4159 (DACB).

Xylia xylocarpa (Roxb.) Taub., Bot. Centralbl. 47: 395. 1891. LN: *Loha kat*. Deciduous tree, planted. Fl. & fr.: March-February. Use: Timber.

CAESALPINIACEAE R.Br.

Caesalpinia cucullata Roxb., Fl. Indica 2: 358. 1832. LN: *Bogaserra kanta*. Scandent shrub, occasionally occurs in hilly areas near stream. Fl. & fr.: January-March. Use: Fire-wood. RS: DMS 3256, 4151 (DACB).

Cassia fistula L., Sp. Pl. 1: 377. 1753. *Cassia rhombifolia* Roxb. LN: *Badar lathi, Sonalu*. Deciduous tree, planted and naturalized. Fl. & fr.: April-May. Use: Medicine.

Senna siamea (Lam.) Irwin & Barneby, Mem. N.Y. Bot. Gard. 35: 98. 1982. LN: *Minjiri*. Evergreen tree, planted and naturalized. Fl. & fr.: Throughout the year. Use: Ornamental. RS: DMS 3247 (DACB).

Tamarindus indica L., Sp. Pl. 1: 34. 1753. LN: *Tetul*. Evergreen tree, planted and naturalized. Fl. & fr.: April-December. Use: Fruit edible.

FABACEAE Lindl.

Dalhouisia bracteata (Roxb.) Graham *ex* Benth., Commentat. Legum. Gen. 5. 1837. *Podalyria bracteata* Roxb. LN: *Gupuri*. Scandent shrub, commonly occurs in scrub forest, hill forest. Fl. & fr.: November-January. Use: Fire-wood. RS: DMS 3253(DACB).

Derris elliptica (Wall.) Benth., J. Linn. Soc. Suppl. 4:111. 1860. Scrambling shrub, rarely occurs in near water courses. Fl. & fr.: March-June. Use: Poison. RS: DMS 3297 (DACB).

Desmodium heterocarpon (L.) DC., Prodr. 2: 337. 1825. LN: *Karpo modi, Koo-shey-dung*. Erect shrub, occasionally occurs near hill side. Fl. & fr.: March-July. Use: Ornamental. RS: DMS 4121 (DACB).

Desmodium laxiflorum DC., Ann. Sci. Nat. Paris 4: 100. 1825. LN: *Laximodi*. Shrub, occasionally occurs in forest thickets. Fl. & fr.: August-December. RS: DMS 3379 (DACB).

Desmodium triflorum (L.) DC., Prodr. 2: 334. 1825. LN: *kulalia, Kodalia*. Perennial herb, occasionally occurs in forest margin and in sunny places. Fl. & fr.: Throughout the year. Use: Medicine. RS: DMS 4183 (DACB).

Flemingia macrophylla (Willd.) Merr., Philipp. J. Sci. 5(2): 130. 1910. LN: *Bara salphan*. Shrub, rarely occurs in forest thickets. Fl. & fr.: January-March. Use: Medicine. RS: DMS 3400 (DACB).

Millettia extensa (Benth.) Baker, Hook., Fl. Brit. India 2: 109. 1876. LN: *Gajrola, Ureya*. Woody climber, occasionally occurs in forest bed near scrub jungle. Fl. & fr.: March-February. Use: Medicine. RS: DMS 3443 (DACB).

Mucuna pruriens (L.) DC., Prodr. 2: 405. 1825. LN: *Al-kushi*. Woody climber, occasionally occurs in scrub jungle. Fl. & fr.: October-March. Use: Medicine. RS: DMS 4174 (DACB).

Uraria crinita (L.) DC., Prodr. 2: 324. 1825. LN: *Diangleja*. Shrub, rarely occurs on hilly forest area. Fl. & fr.: October-February. Use: Fish killing poisons. RS: DMS 34130 (DACB).

Uraria rufescens (DC.) Schindl., Repert. Spec. Nov. Regni Veg. 21(581-587): 14. 1925. *Desmodium horsfieldii* Miq. LN: *Belai leja*. Shrub, rarely occurs in scrub forest. Fl. & fr.: February-October. Use: Medicine. RS: DMS 3428 (DACB). **Fig. 48.**

LYTHRACEAE J.St.-Hil.

Cuphea carthagenensis (Jacq.) J.F. Macbr., Publ. Field Mus. Nat. Hist., Bot. Ser. 8: 124. 1930. Herbs, commonly occurs in moist and wet soil near streams. Fl. & fr.: March-July. Use: Medicine. RS: DMS: 2218 (DACB).

Lagerstroemia speciosa (L.) Pers., Syn. Pl. 2: 72. 1806. LN: *Jarul*. Deciduous tree, planted. Fl. & fr.: April-July. Use: Ornamental & Timber.

THYMELAEACEAE A.Juss.

Aquilaria malaccensis Lam., Encycl. 1(1): 49. 1783. *Aquilaria agallocha* Roxb., Fl. Ind. 2: 422. 1820. LN: *Agar*. Evergreen tree, planted. Fl. & fr.: May-September. Use: Medicine for Asthma, Bronchitis and rheumatism.

MYRTACEAE A.Juss.

Eucalyptus alba Reinw. ex Blume, Bijdr. 1101. 1827. LN: *Eucalyptus*. Deciduous tree, planted. Fl. & fr.: June-December. Use: Ornamental & Fire-wood.

Psidium guajava L., Sp. Pl. 1: 470. 1753. LN: *Peyara*. Evergreen tree, planted. Fl. & fr.: Throughout the year. Use: Fruit & Wildlife supportive.

Syzygium cumini (L.) Skeels, Bull. Bur. Pl. Industr. U.S.D.A. 248: 25. 1912. LN: *Jam*. Evergreen tree, planted. Fl. & fr.: March-June. Use: Timber, Fruit, Medicine, Wildlife supportive.

Syzygium grande (Wight) Walp., repert. Bot. Syst. 2: 180. 1843. LN: *Dhaki jam*. Evergreen tree, commonly occurs in forest open places along trails. Fl. & fr.: March-August. Use: Timber & Wildlife supportive. RS: DMS 2797 (DACB).

Syzygium megacarpum (Craib) Rathakr. & N. Nair, J. Econ. Taxon. Bot. 4: 287. 1983. LN: *Chalta jam*. Evergreen tree, commonly occurs in hill slopes near streams. Fl. & fr.: March-August. Use: Timber, wild life supporting. RS: DMS 4137, 3282 (DACB). **Fig. 47.**

ONAGRACEAE A.Juss.

Ludwigia octovalvis (Jacq.) P.H. Raven, Kew Bull. 15(3): 476. 1962. LN: *Bunlong*, *Labanga*, *Lang*. Annual herb, occasionally occurs in moist place of forest. Fl. & fr.: January-December. RS: DMS 3330, 3998 (DACB). **Fig. 25.**

Ludwigia prostrata Roxb., Fl. Ind. 1: 441. 1820. LN: *Taikosa*. Annual herb, occasionally occurs in moist place of forest. Fl. & fr.: January-October. Use: Fodder. RS: DMS 4123 (DACB).

Ludwigia hyssopifolia (G. Don) Exell, Garcia de Orta 5: 471. 1957. Annual herb, occasionally occurs in moist place of forest. Fl. & fr.: Throughout the year. Use: Fodder. RS: DMS 4184 (DACB).

MELASTOMATACEAE A.Juss.

Melastoma malabathricum L., Sp. Pl. 1: 390. 1753. LN: *Tejbohol*. Shrub, commonly occurs in forest beds, margins and hill slopes. Fl. & fr.: Throughout the year. Use: Medicine. RS: DMS 2269 (DACB).

Osbeckia rostrata D. Don, Prodr. Fl. Nepal. 221. 1825. Lév. LN: *Borogaich*. Big shrub, very rarely occurs on hill side. Fl. & fr.: August-December. Use: Ornamental. RS: DMS 3422, 4095 (DACB).

Oxyspora cernua Hook.f. & Thoms *ex* Triana, Trans. Linn. Soc. London 28: 73. 1871. LN: *Chokha*. Small shrub, occasionally grows on hill side. Fl. & fr.: October-March. Use: Ornamental. RS: DMS 2806, 3260, 4026 (DACB). **Fig. 35.**

COMBRETACEAE R.Br.

Terminalia arjuna (Roxb. *ex* DC.) Wight & Arn., Prodr. Fl. Ind. Orient. 314. 1834. LN: *Arjun, Kahu*. Deciduous tree, planted. Fl. & fr.: April-October. Use: Medicine.

Terminalia bellirica (Gaertn.) Roxb., Pl. Coromandel 2: 54. 1805. LN: *Bohera*. Deciduous tree, planted. Fl. & fr.: March-December. Use: Medicine.

RHIZOPHORACEAE Pers.

Carallia brachiata (Lour.) Merr., Philipp. J. Sci. 15: 249. 1919. LN: *Keirpa*. Evergreen tree, very rarely occurs in shady areas of forest. Fl. & fr.: January-May. Use: Fruit, timber & medicine. RS: DMS 3282 (DACB).

OLACACEAE R.Br.

Oxalys acuminata Wall. *ex* Benth., Proc. Linn. Soc. Lond. 1: 89. 1840. Shrub, occasionally grows in scrub forest and forest edges. Fl. & fr.: Throughout the year. Use: Medicine. RS: Syedur 3738 (DACB).

ICACINACEAE Miers

Gomphandra tetrandra (Wall.) Sleumer, Notizbl. Bot. Gart. Berlin-Dahlem 15: 238. 1940. LN: *Gomphan*. Shrub, rarely occurs on forest beds along the streams. Fl. & fr.: March-December. RS: DMS 3246, 4070 (DACB). **Fig. 19.**

EUPHORBIACEAE A.Juss.

Antidesma acidum Retz., Observ. Bot. 5: 30. 1788. LN: *Chutki*. Deciduous small tree, commonly occurs in forest thickets. Fl. & fr.: March-January. Use: Fruit edible & Medicine. RS: DMS 3320 (DACB).

Antidesma bunius (L.) Spreng., Syst. Veg. 1: 826. 1824. LN: *Elena*. Shrub, occasionally occurs in forest thickets. Fl. & fr.: March-January. Use: Fruit edible, Medicine & Wildlife supportive. RS: DMS 2210 (DACB).

Antidesma montanum Blume, Bijdr. Fl. Ned. India 1124. 1827. Shrub, occasionally occurs in forest thickets. Use: Fruit edible. RS: DMS 3383 (DACB).

Antidesma velutinosum Blume, Bijdr. Fl. Ned. Ind. 1125. 1826. *Antidesma roxburghii* Wall. *ex* Tul. Shrub, occasionally occurs in shady areas near stream. Fl. & fr.: Throughout the year. Use: Fuel, WS. RS: DMS 4029 (DACB).

Aporosa microstachya (Tul.) Müll.Arg., Prodr. 15(2): 474. 1866. *Scepa microstachya* Tul. LN: *Singha gaas*. Evergreen tree, rarely occurs in hilly areas. Fl. & fr.: August-October. Use: Fire-wood. RS: DMS 3385 (DACB).

Baccaurea motleyana Müll.Arg. Prodr. 15(2): 461. 1866. *Pierardia motleyana* Müll.Arg. Evergreen tree, occasionally occurs in shady areas near stream. Fl. & fr.: April-October. Use: Fire-wood. RS: DMS 3268 (DACB).

Baccaurea ramiflora Lour., Fl. Cochinch. 661. 1790. *Baccaurea cauliflora* Lour., LN: *Latkan*. Tree, planted and naturalized. Fl. & fr.: June-September. Use: Fruit edible. RS: Syedur-3736 (DACB).

Balakata baccata (Roxb.) Esser, Blumea 44: 155. 1999. *Sapium baccatum* Roxb. LN: *Boloch, Billa, Kalabel, Kalagota*. Evergreen tree, occasionally occurs in open places. Fl. & fr.: April-October. Use: Fire-wood. RS: DMS 4162 (DACB).

Breynia retusa (Dennst.) Alston in Ann. Roy. Bot. Gard. (Peradeniya) 11: 204. 1929. LN: *Chitki*. Shrub, occasionally occurs in scrub forest, hill slopes. Fl. & fr.: April-September. RS: DMS 2208 (DACB). **Fig. 9.**

Bridelia assamica Hook.f., Fl. Brit. India 5: 269. 1887. LN: *Barohaita*. Evergreen tree, occasionally occurs in deep forest. Fl. & fr.: June-September. RS: DMS 4031(DACB).

Bridelia stipularis (L.) Blume, Bijdr. 597. 1826. LN: *Kolata, Horinhara*. Shrub, commonly occurs in sunny places. Fl. & fr.: September-April. Use: Fruit. RS: DMS 4090 (DACB).

Bridelia tomentosa Blume, Bijdr. 597 1826. LN: *Khoi*. Evergreen tree, rarely occurs in deep forest near stream. Fl. & fr.: September-February. Use: Medicine. RS: DMS 4089 (DACB). **Fig. 10.**

Codiaeum variegatum (L.) Rumph. ex A.Juss., Euphorb. Gen. 80, 111. 1824. LN: *Patabahar*. Shrub, planted. Fl. & fr.: Throughout the year. RS: DMS 3267 (DACB).

Glochidion lanceolarium (Roxb.) Voigt, Hort. Suburb. Cal.: 153. 1845. LN: *Bhauri*. Evergreen tree, rarely occurs in open places. Fl. & fr.: September-April. RS: DMS 2804 (DACB).

Glochidion zeylanicum (Gaertn.) A.Juss., Euphorb. Gen. 107. 1824. *Bradleia nitida* Roxb. LN: *Siloni kachua*. Evergreen tree, rarely occurs in forest border. Fl. & fr.: June-November. Use: Medicine. RS: DMS 4167 (DACB).

Macaranga indica Wight., Icon. Pl. India Orient. 5. 1852. Deciduous tree, occasionally occurs in forest margin. Fl. & fr.: April-December. Use: Medicine & Fuel. RS: DMS 3283 (DACB).

Macaranga denticulate (Blume) Muell.-Arg, Prodr. 15(2): 1000. 1866. LN: *Bura, Rata*. Evergreen tree, occasionally occurs in open forest margin. Fl. & fr.: January-December. Use: Medicine & Fuel. RS: DMS 2337 (DACB).

Mallotus nudiflorus (L.) Kulju & Welzen, Blumea 52: 124. 2007. LN: *Meragota, Pitali, Deshi-gamar*. Shrub, occasionally occur in open sites and near streams. Fl. & fr.: Throughout the year. Use: Medicine. RS: DMS 2821 (DACB).

Mallotus repandus (Rottler ex Willd.) Muell.-Arg., Linnaea 34: 197. 1865. LN: *Akus*. Scandent shrub, rarely occurs in open scrub forest near stream. Fl. & fr.: January-June. Use: Medicine. RS: DMS 2258 (DACB).

Mallotus philippensis (Lam.) Muell.-Arg., Linnaea 34: 196. 1865. *Croton philippensis* Lam. LN: *Kamalaguli, Kamela, Sinduri*. Evergreen tree, planted. Fl. & fr.: Throughout the year. Use: Medicine & Fodder. RS: DMS 2257 (DACB).

Mallotus tetracoccus (Roxb.) Kurz, For. Fl. Burma 2: 382. 1877. LN: *Kumaribura, Nimputeli*. Evergreen tree, occasionally occurs in moist places and hill slopes. Fl. & fr.: April-December. Use: Fuel. RS: DMS 2410 (DACB). **Fig. 28.**

Phyllanthus acidus (L.) Skeels, Bull. Bur. Pl. Industr. U.S.D.A. 148: 17. 1909. *Averrhoa acida* L. LN: *Arbori, Horbori*. Deciduous tree, planted. Fl. & fr.: March, June. Use: Fruit edible & Wildlife supportive. RS: DMS 2310 (DACB).

Phyllanthus emblica L., Sp. Pl. 982. 1753. LN: *Amloki*. Deciduous tree, planted. Fl. & fr.: March-September. Use: Fruit edible & Medicine.

Phyllanthus niruri L., Sp. Pl.: 981. 1753. LN: *Jondies gach*. Shrub, occasionally occurs in moist places of forest beds. Fl. & fr.: April-December. Use: Medicine. RS: DMS 4161 (DACB).

Phyllanthus reticulatus Poir., *Encycl.* 5: 298. 1804. LN: *Chitki, Pasnjuli*. Shrub, occasionally occurs on scrub forest and forest edges. Use: Medicine. Fl. & fr.: March-October. RS: DMS 4039 (DACB).

Phyllanthus urinaria L., *Sp. Pl.* 982. 1753. LN: *Hazarmani*. Perennial erect herb, commonly occurs in waste places, forest margin. Fl. & fr.: April-October. Use: Medicine. RS: DMS 3974 (DACB).

Sauropus androgynus (L.) Merr. *Forest. Bur. Philipp. Bull.* 1: 30. 1903. *Aalius androgyna* (L.) Kuntze. LN: *Mithapoto*. Evergreen shrub, rarely occurs in scrub forest. Fl. & fr.: May-November. Use: Medicine. RS: DMS 4034 (DACB).

Trigonostemon semperflorens (Roxb.) Müll., *Arg. Prodr.* 15(2): 1110. 1866. *Clutia semperflorens* Roxb. LN: *Trignomon*. Shrub, very rarely occurs in scrub forest near stream. Fl. & fr.: May-November. RS: DMS 3440 (DACB).

RHAMNACEAE A.Juss.

Guania tiliaefolia Lam., *Encycl.* 3: 5. 1789. LN: *Pan lata, Herjengota*. Shrub, rarely occurs in forest edges and scrub forest. Fl. & fr.: July-December. Use: Medicine. RS: DMS 4171 (DACB).

Ziziphus oenoplia L., *Gard. Dict.* 1768. LN: *Bon Boro, Jangal Boro, Sialkul*. Scanted shrub, commonly occurs in hill slopes and scrub forests. Fl. & fr.: August-December. Use: Fruit edible. RS: DMS 4035 (DACB).

LEEACEAE Dumort.

Leea guineensis G. Don. *Gen. Hist.* 1: 712. 1831. *Leea acuminata* Wallich *ex* Clarke. LN: *Phupharia*. Shrub, commonly occurs near chara and in moist soils. Fl. & fr.: May-February. RS: DMS 3341 (DACB).

Leea rubra Blume *ex* Spreng. *Syst. Veg.* 1: 670. 1824. LN: *Lal bhanga*. Shrub, occasionally occurs near trail. Fl. & fr.: May-July. RS: DMS 2303, 3989 (DACB). **Fig. 27.**

Leea aequata L., *Syst. Nat. ed.* 12, 2: 627. 1767. LN: *Kakjhonga*. Shrub, occasionally occurs in hilly area near streams. Fl. & fr.: June-December. RS: DMS 4083 (DACB).

VITACEAE A.Juss.

Cayratia japonica (Thunb.) Gagnep., *Notul. Syst. (Paris)* 1: 349. 1911. *Causonia japonica* (Thunb.) Raf. LN: *Japani goalilata*. Climber, commonly occurs in scrub forest. Fl. & fr.: April-August. RS: DMS 2809 (DACB).

Cayratia pedata (Lam.) Gagnep. *Notul. Syst. (Paris)* 1: 346. 1911. *Cissus pedata* Lam. LN: *Goalilata*. Climber, occasionally occurs in scrub forest. Fl. & fr.: April-October. Use: Medicine. RS: DMS 2263 (DACB).

Cayratia trifolia (L.) Domin, *Biblioth. Bot.* 89: 370. 1927. *Causonis trifolia* (L.) Raf. LN: *Amol lata, Anal lata*. Climber, very commonly occurs in forest beds on other plants. Fl. & fr.: February-July. Use: Medicine. RS: DMS 2771 (DACB).

Cyphostemma auriculatum (Roxb.) P. Singh & B.V. Shetty, *Taxon* 35: 596. 1986. Climber, occasionally grows in forest beds on other plants. Fl. & fr.: March-June. RS: DMS 3288 (DACB).

Tetrastigma bracteolatum (Wall.) Planch., *Monogr. Phan. A.DC. & C.DC.* 5(2): 428. 1887. *Vitis bracteolata* Wall. LN: *Golgoli lata*. Climber, occasionally occurs in forest, associated with other plants. Fl. & fr.: July-January. Use: Medicine. RS: DMS 3386 (DACB).

Tetrastigma dubium (Lawson) Planch., *Monogr. Phan. A.DC. & C.DC.* 5(2): 437. 1887. *Vitis dubia* Lawson. LN: *Kuanria*. Climber, occasionally occurs in hilly forested areas. Fl. & fr.: March-July. Use: Medicine. RS: DMS 2817 (DACB).

Tetrastigma leucostaphylum (Dennst.) Alston, Taxon 26: 539. 1977. LN: *Horina-Lata*. Climber, occasionally occurs in hill forest and thickets. Fl. & fr.: March-August. Use: Fruit edible. RS: DMS 3979 (DACB).

SAPINDACEAE A.Juss.

Allophylus subfalcatus Radlk., Rec. Bot. Surv. India 3: 342 1907. LN: *Aitachit*. Shrub, occasionally occurs in scrub forest near streams. Fl. & fr.: Throughout the year. Use: Fire-wood. RS: DMS 4021 (DACB). **Fig. 3.**

Allophylus samarensis Merr., Philipp. J. Sci., C 11: 192. 1916. Shrub, rarely occurs in scrub forest near streams. Fl. & fr.: May-November. RS: DMS 4021 (DACB). **Fig. 2.**

Lepisanthes senegalensis (Poir.) Leenh., Blumea 17: 85. 1969. LN: *Gotaharina*. Shrub, rarely occurs in scrub forest. Fl. & fr.: July-April. Use: Making pole. RS: DMS 2749 (DACB).

Schleichera oleosa (Lour.) Oken., Allg. Naturgesch. Bot. 2: 1341. 1841. LN: *Joyna, Kusum*. Deciduous tree. Planted. Fl. & fr.: March-November. Use: Fruit edible & Medicine. RS: DMS 2761 (DACB).

ANACARDIACEAE R.Br.

Lanea coromandelica (Houtt.) Merr., J. Arn. Arbor. 19: 353. 1938. LN: *Jiga, Jiol, Bhadi*. Deciduous tree, planted and naturalized. Fl. & fr.: February-June. Use: Fodder.

Mangifera indica L., Sp. Pl. 200. 1753. LN: *Aam*. Evergreen tree, planted and naturalized. Fl. & fr.: March-August. Use: Fruit edible & Wildlife supportive

MELIACEAE A.Juss.

Azadirachta indica A.Juss., Mém. Mus. Hist. Nat. 19: 221. 1830. *Melia azadirachta* L. LN: *Neem*. Evergreen tree, planted and naturalized. Fl. & fr.: February-October. Use: Medicine.

Chukrasia tabularis A. Juss., Mém. Mus. Hist. Nat. 19: 251. 1830. *Chukrasia nimmonii* Graham ex Wight. LN: *Chik rassi, Boga poma*. Deciduous tree, planted and naturalized. Fl. & fr.: May-February. Use: Timber. RS: DMS 3987 (DACB).

Melia azedarach L., Sp. Pl. 384. 1753. LN: *Ghuranim, Kawanim*. Evergreen tree, planted and naturalized. Fl. & fr.: March-February. Use: Timber & Medicine. RS: DMS 3457 (DACB).

Toona ciliata M. Roem., Fam. Nat. Syn. Monogr. 1: 139. 1846. *Cedrela serrulata* Miq. LN: *Toon, Piya, Piyatoon*. Deciduous tree, planted. Fl. & fr.: January-June. Use: Timber & Medicine.

RUTACEAE A.Juss.

Citrus medica L., Sp. Pl. 782. 1753. *Citrus crassa* Hassk. LN: *Bura lebu*. Shrub, rarely grows in deep forest. Fl. & fr.: Throughout the year. Use: Medicine. RS: DMS 2798 (DACB).

Clausena heptaphylla (Roxb.) Wight & Arn., Prodr. Fl. India Orient. 95. 1834. *Clausena macrophylla* Hook.f. Shrub, occasionally occurs in hill slopes near trails. Fl. & fr.: March-August. Use: Medicine. RS: DMS 2298 (DACB). **Fig. 14.**

Glycosmis pentaphylla (Retz.) DC., Prodr. 1: 538. 1824. *Limonia arborea* Roxb. LN: *Datmajani, Motkila*. Shrub, commonly occurs in scrub forest, hill slopes. Fl. & fr.: Throughout the year. Use: Medicine. RS: DMS 2788 (DACB).

Micromelum minutum (J.G. Forster) Wight & Arn., Prodr. Fl. India Orient. 448. 1834. *Micromelum pubescens* Blume. LN: *Dulia*. Shrub. Occasionally grows in scrub forest and deep forest. Fl. & fr.: Throughout the year. Use: Medicine & Wildlife supporting. RS: DMS 2223 (DACB).

Murraya paniculata (L.) Jack, Malayan Misc. 1(5): 31. 1820. *Murraya exotica* L. LN: *Kamini*. Shrub, planted. Fl. & fr.: March-January. Use: Ornamental & Wildlife supporting. RS: DMS 3411 (DACB).

Zanthoxylum rhetsa (Roxb.) DC., Prodr. 1: 728. 1825. *Fagara rhetsa* Roxb. LN: *Bazinali*, *Bajna*. Deciduous tree, occasionally occurs in forest margin and in dry open areas. Fl. & fr.: March-September. Use: Oil & Medicine. RS: DMS 3988 (DACB).

OXALIDACEAE R.Br.

Oxalis corniculata L., Sp. Pl. 435. 1753. LN: *Amrul*, *Chuka tripati*, *Amboli*. Perennial herb, commonly occurs in shady moist soil. Fl. & fr.: September-May. Use: Medicine. RS: DMS 2769 (DACB).

Averrhoa carambola L., Sp. Pl.: 428. 1753. LN: *Kamranga*. Deciduous tree, planted. Fl. & fr.: March-January. Use: Fruit & Wild life Supportive.

BALSAMINACEAE A.Rich.

Impatiens laevigata Wall., List 4753. 1831. Shrub, rarely occurs in deep forest near stream. Fl. & fr.: May-October. RS: DMS 3441 (DACB).

ARALIACEAE A.Juss.

Brassaiopsis glomerulata (Blume) Regel, Gartenflora 1863: 275. 1863. *Brassaiopsis specios* Decne. & Planch, Rev. LN: *Kurila*. Shrub, occasionally occurs in forest thickets. Fl. & fr.: August-December. RS: DMS 3413 (DACB).

Trevesia palmata (Roxb.) Vis., Mem. Acad. Sci. Torino 4: 262. 1842. LN: *Ban-pepe*, *Aragoja*. Deciduous tree, occasionally occurs in thickets near stream. Fl. & fr.: January-May. Use: Medicine. RS: DMS 2254 (DACB).

APOCYNACEAE A.Juss.

Alstonia scholaris (L.) R.Br., Asclepiadeae 75. 1810. *Echites scholaris* L. LN: *Chaitan*, *Chhatim*. Evergreen tree occasionally occurs in hill slopes and scrub forest. Fl. & fr.: November-May. Use: Medicine. RS: DMS 3338 (DACB).

Alyxia gracilis (Wall. ex A.DC.) Hook.f., Fl. Brit. India 3: 634. 1882. *Hunteria gracilis* Wall. ex A.DC. LN: *Aligri*. Woody climber, occasionally occurs in forest edges and scrub forest. Fl. & fr.: June-January. RS: DMS 3342 (DACB).

Ichnocarpus frutescens (L.) B.Br., Mem. Werm. Soc. 1: 62. 1811. LN: *Shamlata*, *Dudhi lata*, *Paralia lata*. Woody climber, occasionally occurs in dense forest areas. Fl. & fr.: April-December. Use: Fibre. RS: DMS 2259 (DACB). **Fig. 20.**

Tabernaemontana alternifolia L., Sp. Pl.: 211. 1753. *Tabernaemontana crispa* Roxb. LN: *Ban tagor*. Shrub, commonly occurs in hill slopes, scrub forest and thicket. Fl. & fr.: May-January. Use: Medicine & Ornamental. RS: DMS 3338 (DACB).

ASCLEPIADACEAE A.Juss.

Dischidia bengalensis Colebr., Trans. Linn. Soc. London 12: 357. 1818. *Dischidia cuneifolia* Wall. LN: *Pararula*. Epiphytic climber, occasionally grows on tree trunks. Fl. & fr.: April-December. Use: Ornamental. RS: DMS 2409 (DACB).

Hoya verticillata (Vahl) G.Don, Gen. Hist. 4: 128. 1837. *Hoya parasitica* (Wall. ex Hornem.) Wight. LN: *Mom phul*. Parasitic climber, occasionally occurs on tree trunk in forest. Fl. & fr.: June-February. RS: DMS 3468, 4172 (DACB).

SOLANACEAE A.Juss.

Solanum torvum Sw., Nov. Gen. Sp. Pl. Prodr. 47. 1788. LN: *Gota begun, Tit begun*. Shrub, occasionally occurs in forest margins. Fl. & fr.: January-December. Use: Vegetable & Medicine. RS: DMS 3421 (DACB).

CONVOLVULACEAE A.Juss.

Ipomoea fistulosa Mart. ex Choisy in DC., Prodr. 9: 349. 1845. LN: *Dhol kolmi*. Shrub, commonly occurs in near sunny water bodies. Fl. & fr.: Throughout the year. Use: Fuel, Hedge plant.

Merremia umbellata (L.) Hallier f., Bot. Jahrb. 16. 552. 1893. *Convolvulus cymosus* Desr. LN: *Sada komli*. Woody climber, commonly occurs in forest edges and thickets. Fl. & fr.: February-May. RS: DMS 2780 (DACB).

CUSCUTACEAE Dumort.

Cuscuta reflexa Roxb., Pl. Cor. 2: 3. Pl. 104. 1798. *Cuscuta elatior* Choisy. LN: *Swarnalata*. Parasitic climber, commonly occurs in on the hedge plants. Fl. & fr.: August-March. Use: Medicine. RS: DMS 2764 (DACB).

VERBENACEAE Saint.-Hilaire

Callicarpa arborea Roxb., Fl. Ind. 1: 405. 1820. *Aganon umbellata* Raf. LN: *Bormala, Khoja*. Shrub, occasionally occurs along forest trails. Fl. & fr.: May-November. Use: Fire-wood. RS: DMS 3290 (DACB).

Callicarpa longifolia Lam., Encycl. 1: 563. 1785. *Callicarpa lanceolaria* Roxb. Shrub, occasionally occurs in scrub forests. Fl. & fr.: July-February. Use: Fire-wood. RS: DMS 4012 (DACB). **Fig. 12.**

Clerodendrum glandulosum Lindl., Edwards's Bot. Reg. 30. 19. 1844. *Clerodendrum colebrookianum* Walp. LN: *Bonbhati, Napigachh*. Shrub, occasionally occurs in forest edges. Fl & fr: May-October. Use: Medicine. RS: DMS 3285 (DACB).

Clerodendrum infortunatum L., Sp. Pl. 637. 1753. *Clerodendrum viscosum* Vent. LN: *Bhat, Ghetuphul*. Shrub, very commonly occurs in forest areas. Fl. & fr.: January-July. Use: Medicine. RS: DMS 2285 (DACB).

Clerodendrum japonicum (Thunb.) Sweet, Hort. Brit. 822. 1826. LN: *Lal chondona bhat*. Shrub, occasionally occurs in forest edges. Fl & fr: May-October. Use: Medicine. RS: DMS 3285 (DACB).

Clerodendrum laevifolium Blume, Bijdr. 808. 1826. *Clerodendrum wallichii* Merr. *Clerodendrum nutans* Wall. ex D. Don. LN: *Dieng-Julkah*. Shrub, rarely occurs in hill slopes. Fl. & fr.: May-December. Use: Ornamental. RS: DMS 4033, 3287 (DACB).

Lantana camara L., Sp. Pl. 627. 1753. LN: *Lantana, Guay ganda*. Shrub, very commonly occurs in hill slopes, forest trails along sunny areas. Fl. & fr.: Throughout the year. Use: Soil binder. RS: DMS 2779 (DACB). **Fig. 22.**

Rotheca serrata (L.) Steane & Mabb. Novon 8: 206. 1998. *Clerodendrum serratum* var. *wallichii* C.B. Clarke. Shrub, rarely occurs in forest margin. Fl. & fr.: January-November. Use: Medicine & Vegetable. RS: DMS 3373 (DACB).

Tectona grandis L.f., Suppl. Pl. 151. 1782. *Theka grandis* (L.f.) Lam. Deciduous tree, planted. LN: *Segun*. Fl. & fr.: July-November. Use: Timber. RS: DMS 2355 (DACB).

Vitex altissima L.f., Suppl. Pl. 294. 1782. *Vitex alata* Willd. LN: *Amhui monwal*. Evergreen tree, rarely occurs in open forest areas. Fl. & fr.: May-November. Use: Fire-wood. RS: DMS 3373 (DACB).

LAMIACEAE Martinov

Anisomeles indica (L.) Kuntze, Rev. Gen.: 512. 1891. *Nepeta indica* L. LN: *Gobura, Shipri gach*. Annual herb, occasionally occurs near forest trails. Fl. & fr.: October-July. Use: Medicine. RS: DMS 2397 (DACB).

Mosla dianthera (Buch.-Ham. ex Roxb.) Maxim., Bull. Acad. Imp. Sci. Saint-Pétersbourg 10: 457. 1865. Annual herb, occasionally occurs in forest edge. Fl. & fr.: October-June. RS: DMS 3997, 4093 (DACB).

Pogostemon auricularius (L.) Hassk., Tijdschr. Naturl. Gesch. Physiol. 10: 127. 1843. *Mentha auricularis* L. Annual herb, occasionally occurs in sunny moist places. Fl. & fr.: September-January. RS: DMS 2219 (DACB). **Fig. 41.**

Pogostemon plectrantoides Desf., Mém. Mus. Hist. Nat. 2: 155. 1815. *Mentha fruticosa* Roxb. ex D. Don, LN: *Tranpachuli*. Shrub, occasionally occurs in forest thickets. Fl. & fr.: March-July. RS: DMS 2747 (DACB).

SCROPHULARIACEAE A.Juss.

Adenosma indianum (Lour.) Merr., Trans. Amer. Philos. Soc. 24(2): 351. 1935. LN: *Barakesuti*. Annual herb, occasionally grows forest margins, open sunny places. Fl. & fr.: July-January. Use: Medicine. RS: DMS 3980 (DACB).

Limnophila heterophylla (Roxb.) Benth. Scroph. Ind. 25. 1835. LN: *Patakutra*. Perennial herb, occasionally occurs in sunny low areas mainly in water body. Fl. & fr.: February-October. Use: Medicine. RS: DMS 3360 (DACB).

Limnophila indica (L.) Druce, Rep. Bot. Soc. Exch. Club Br. Isles 3: 420. 1914. LN: *Pani karpur*. Perennial herb, occasionally occurs in water body in forest. Fl. & fr.: February-October. Use: Medicine. RS: DMS 3993 (DACB).

Limnophila rugosa (Roth) Merr., Interpr. Herb. Amboin. 466. 1917. Perennial herb, commonly occurs in sunny low areas mainly in water body. Fl. & fr.: September-December. RS: DMS 3982 (DACB). **Fig. 24.**

Lindernia crustacea (L.) F. Muell., Census Austral. Pl. 1: 97. 1882. LN: *Chapra gas*. Annual herb, commonly occurs in moist places and fallo areas. Fl. & fr.: April-December. Use: Medicine. RS: 4096 (DACB).

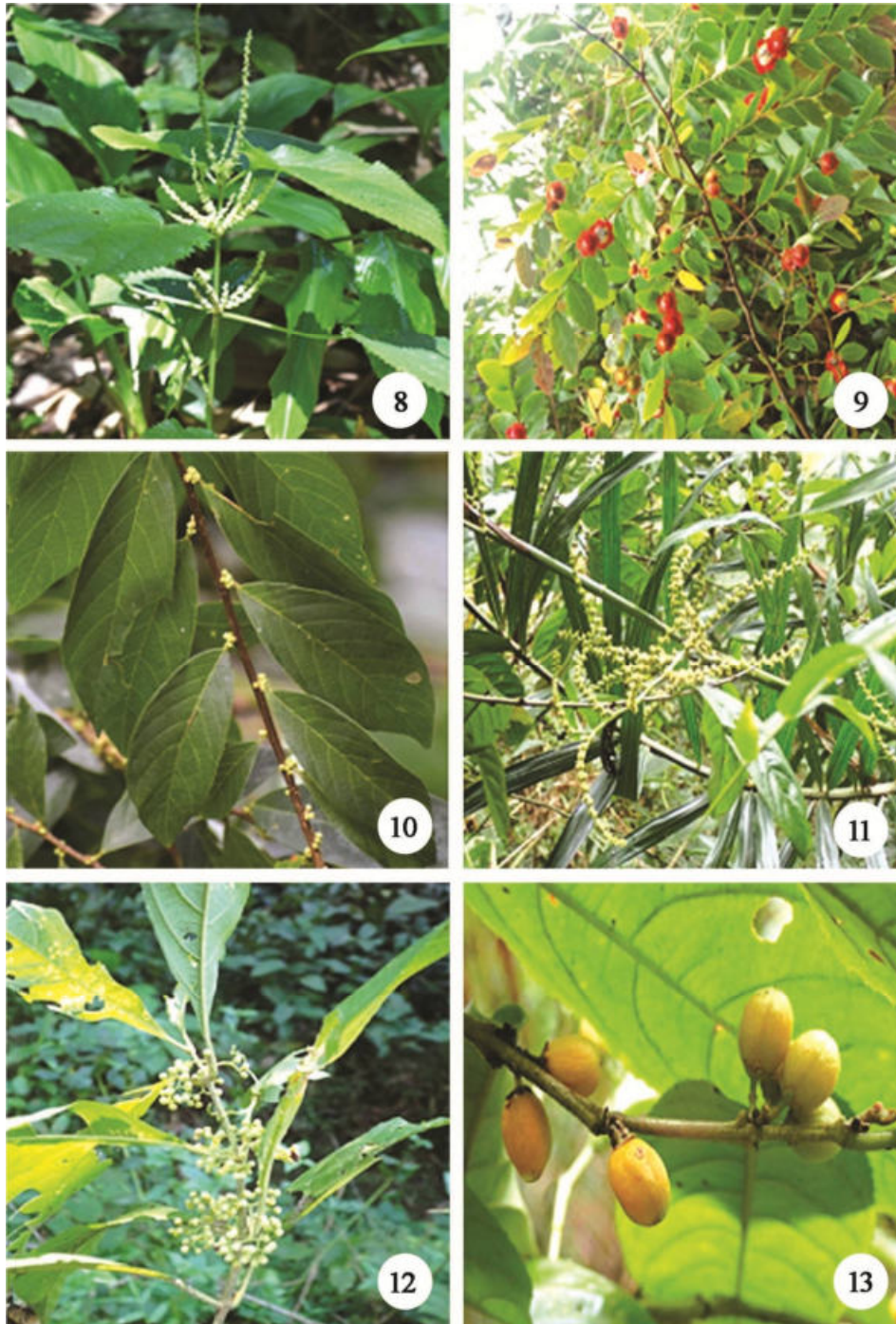
Lindernia ruellioides (Colsm.) Pennell, Brittonia 2: 182. 1936. *Ilysanthes ruellioides* (Colsm.) Kuntze. Annual herb, occasionally occurs in stream sides and moist places. Fl. & fr.: May-January. RS: DMS 4020 (DACB).

Mazus pumilus (Burm.fil.) Steenis, Nova Guinea, n. s., 9(1): 31. 1958. Annual herb, occasionally occurs in shady place of forest bed. Fl. & fr.: Almost throughout the year. RS: DMS 4098 (DACB).

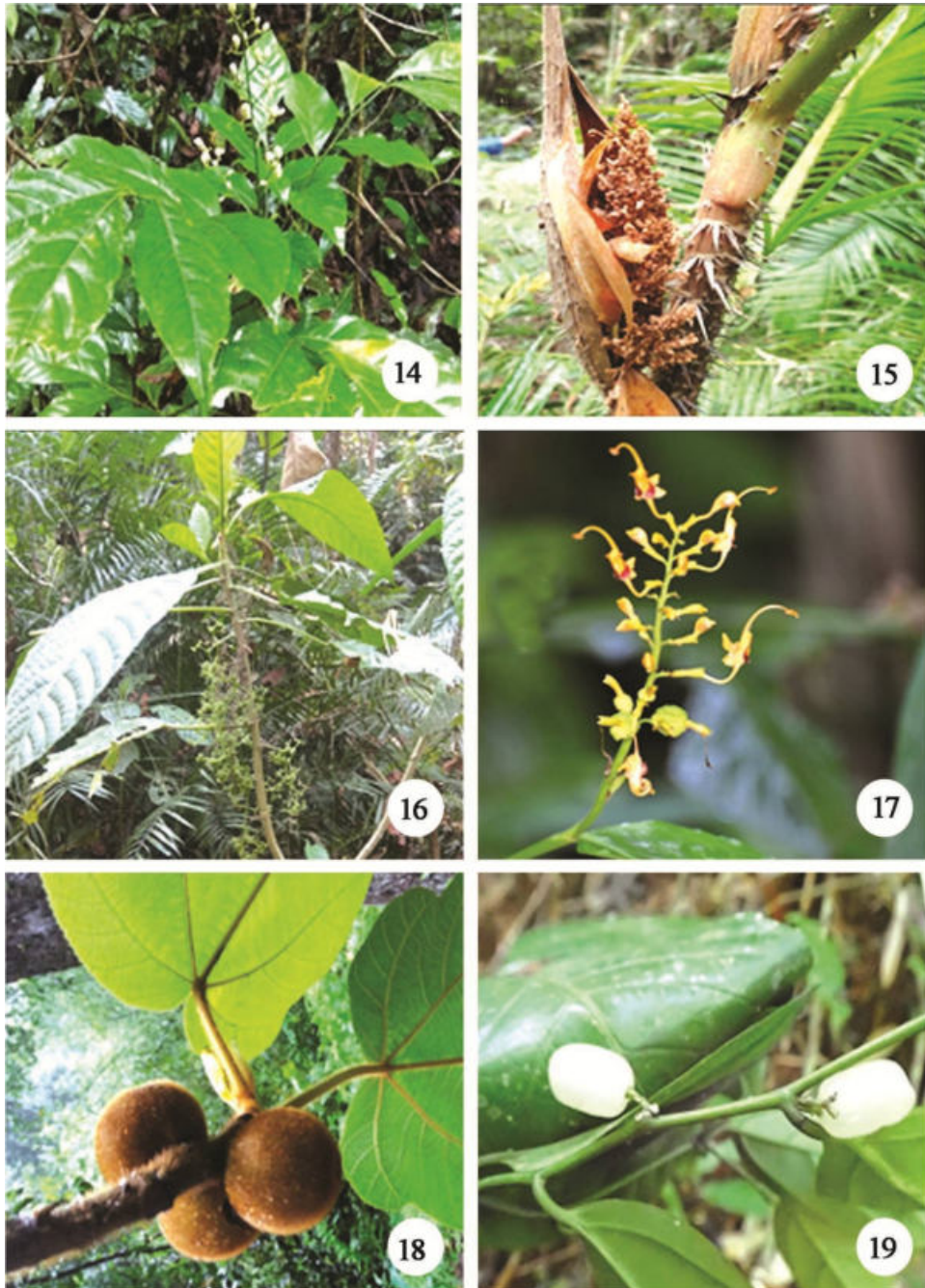
Torenia flava Buch.-Ham. ex Benth. Scroph. Ind. 38. 1835. LN: *Avatoren*. Annual herb, rarely occurs in moist places near streams. Fl. & fr.: May -September. RS: DMS 3976 (DACB).



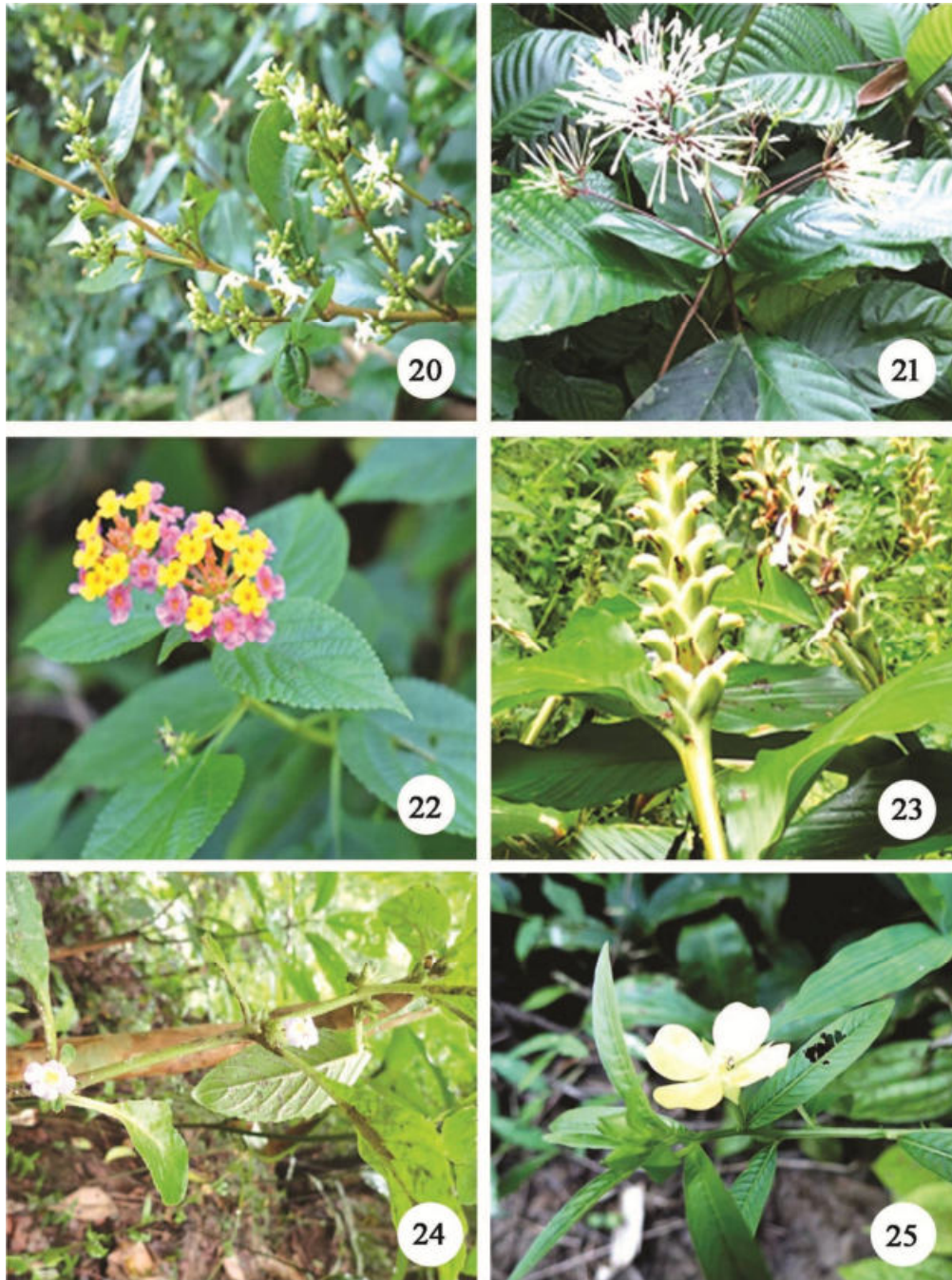
Figs 2-7: 2. *Allophylus samarensis* Merr., 3. *Allophylus subfalcatus* Radlk., 4. *Amischotolype hookeri* (Hassk.) H. Hara., 5. *Ardisia solanacea* (Poir.) Roxb., 6. *Begonia silhetensis* (A.DC.) C.B. Clarke., 7. *Blumea lanceolaria* (Roxb.) Druce.



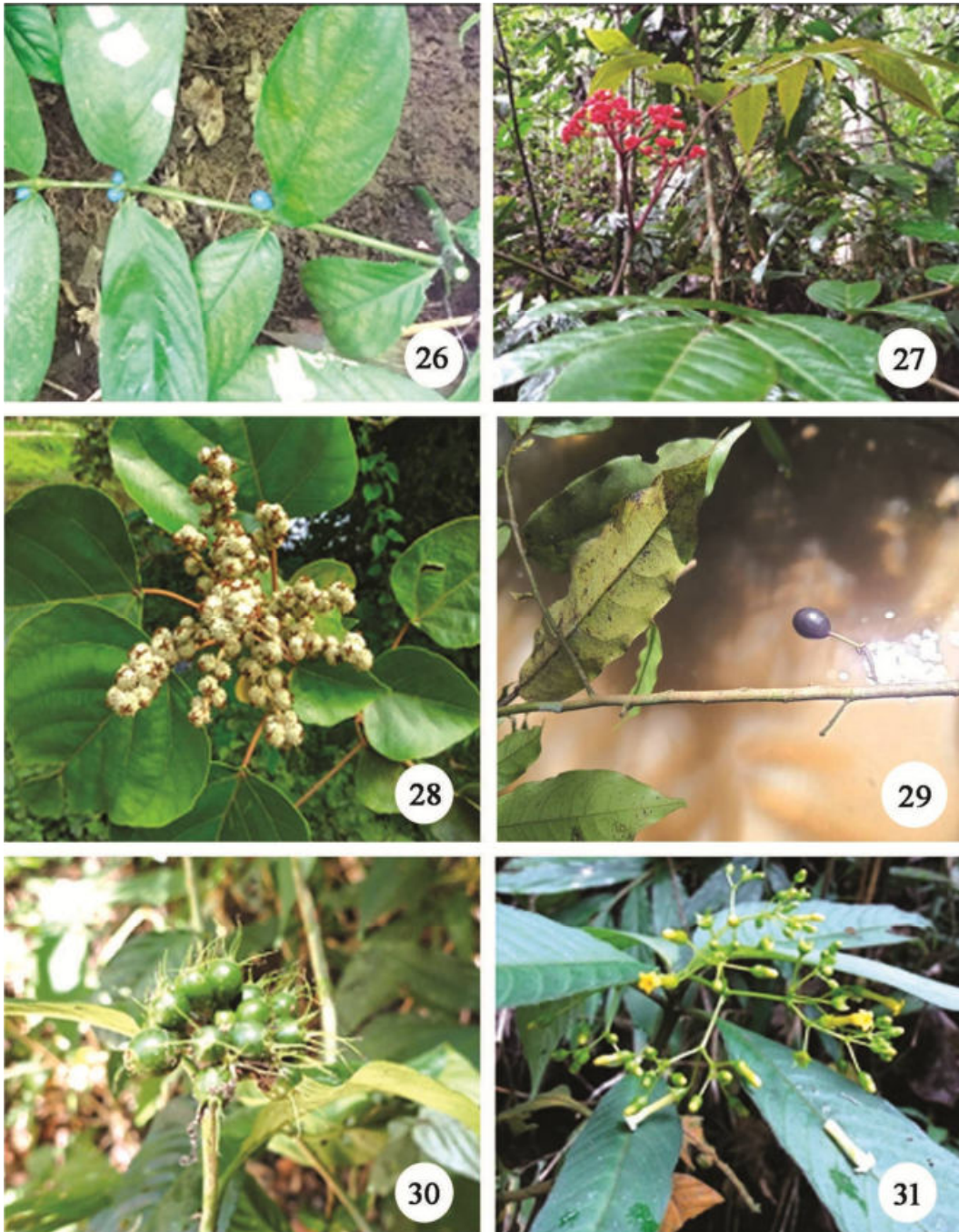
Figs 8-13: 8. *Boehmeria macrophylla* Hornem., 9. *Breynia retusa* (Dennst.) Alston., 10. *Bridelia tomentosa* Blume, 11. *Calamus viminalis* Willd., 12. *Callicarpa longifolia* Lam., 13. *Casearia vareca* Roxb.



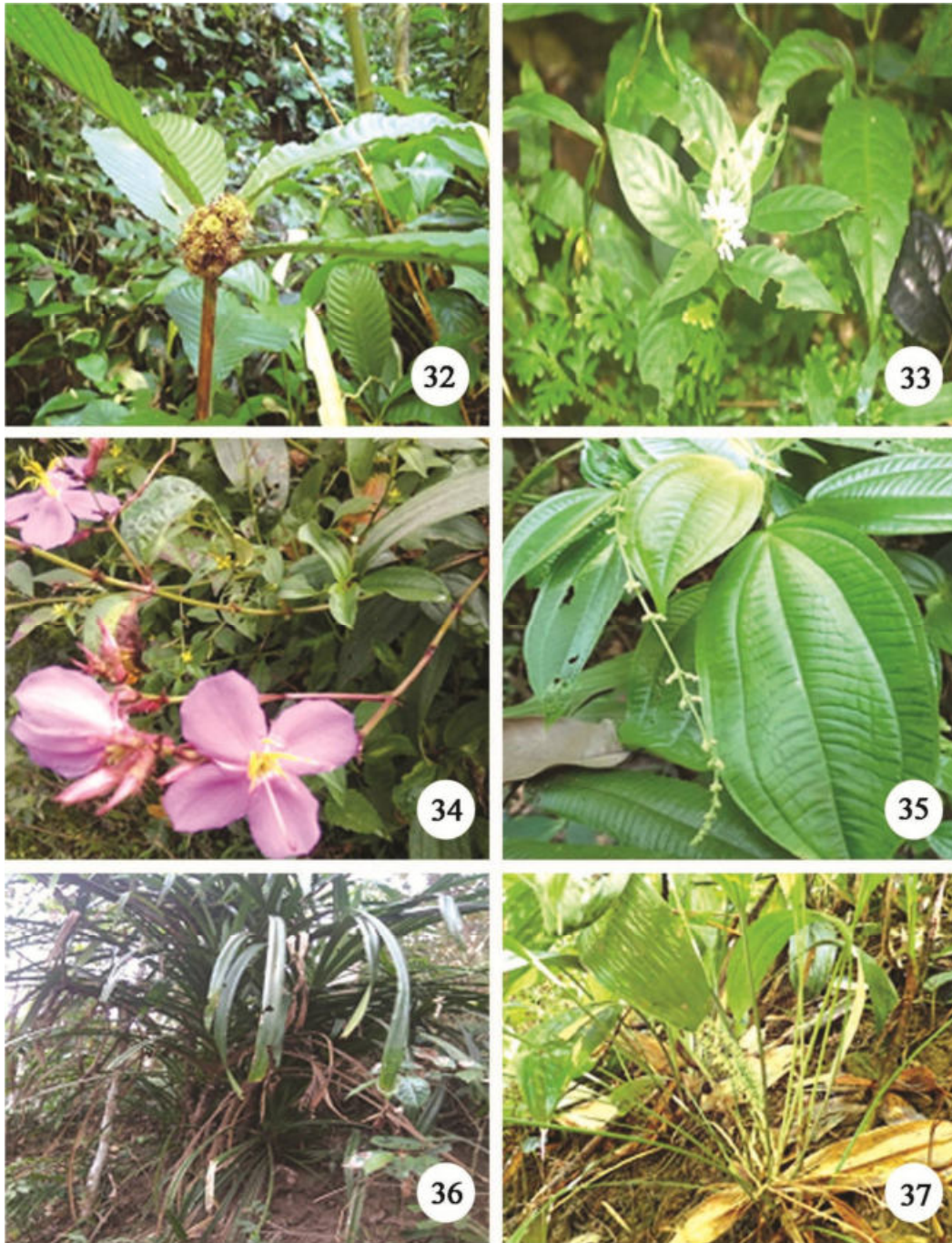
Figs 14-19: 14. *Clausena heptaphylla* (Roxb.) Wight & Arn., 15. *Daemonorops jenkinsiana* (Griff.) Mart., 16. *Dendrocide sinuata* (Blume) Chew., 17. *Globba orixensis* Roxb., 18. *Ficus hirta* Vahl., 19. *Gomphandra tetrandra* (Wall.) Sleumer.



Figs 20-25: 20. *Ichnocarpus frutescens* (L.) B.Br., 21. *Ixora nigricans* R.Br., 22. *Lantana camara* L., 23. *Larsenianthus careyanus* (Benth.) W.J.Kress & Mood., 24. *Limnophila rugosa* (Roth) Merr., 25. *Ludwigia octovalvis* (Jacq.) P.H.Raven.



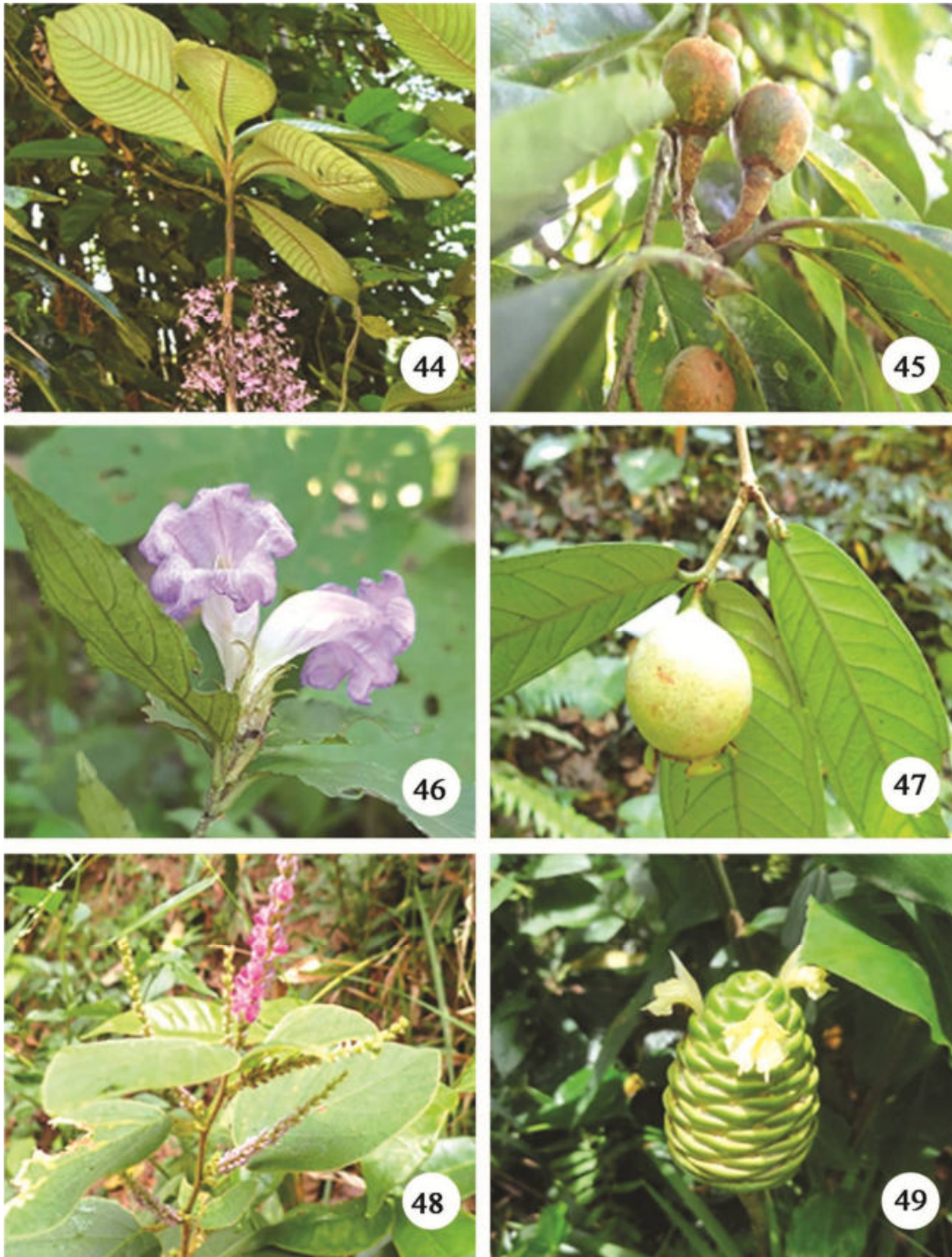
Figs 26-31: 26. *Lasianthus attenuatus* Jack., 27. *Leea rubra* Blume, 28. *Mallotus tetracoccus* (Roxb.) Kurz., 29. *Miliusa globosa* (A.DC.) Panigrahi & S.C.Mishra, 30. *Mussaenda roxburghii* Hook.f., 31. *Mycetia longifolia* (Wall.) Kuntze.



Figs 32-37: 32. *Myrioneuron nutans* Wall., Fig. 33. *Ophiorrhiza mungos* L., 34. *Osbeckia rostrata* D.Don., 35. *Oxyspora cernua* Hook.f. & Thoms., 36. *Pandanus odorifer* (Forssk.) Kuntze, 37: *Peliosanthes tetra* Andrews.



Figs 38-43: 38. *Phlogacanthus curviflorus* (Wall.) Nees, 39. *Pilea glaberrima* Blume, 40. *Piper nigrum* L., 41. *Pogostemon auricularius* (L.) Hassk., 42. *Psychotria silhetensis* Hook.f., 43. *Pycnarrhena pleniflora* Miers.



Figs 44-49: 44. *Rhyncholechum ellipticum* (Wall. ex D. Dietr.) A.DC., 45. *Schima wallichii* Choisy., 46. *Strobilanthes glomerata* (Nees) T. Anderson, 47. *Syzygium megacarpum* (Craib) Rathakr. & N. Nair., 48. *Uraria rufescens* (DC.) Schindl., 49. *Zingiber zerumbet* (L.) Roscoe.

Torenia violacea (Azaola ex Blanco) Pennell, J. Arnold Arbor. 24 (3): 255. 1943. LN: *Begunia*. Annual herb, occasionally occurs in wet places near streams. Fl. & fr.: August-November. RS: DMS 2386 (DACB).

OLEACEAE Hoffmanns. & Link

Jasminum multiflorum (Burm.f.) Andr. (kundo), Bot. Repos. 8: t. 496. 1807. *Jasminum gracillimum* Hook.f. LN: *Kund*. Scandent shrub, occasionally occurs on forest thickets. Fl. & fr.: December-July. Use: Medicine & Ornamental. RS: DMS 2727 (DACB).

Jasminum scandens (Retz.) Vahl, Symb. Bot. 3: 2. 1794. *Jasminum laetum* Wall., Scandent shrub, occasionally occurs on forest thickets and open places. Fl. & fr.: October-May. RS: DMS 3402 (DACB).

GESNERIACEAE Rich. & A.Juss.

Rhynchotechum ellipticum (Wall. ex D.Dietr.) A.DC., Prodr. 9: 285. 1845. LN: Choedhima, Paich. Shrub, commonly occurs in moist places near stream. Fl. & fr.: June-September. Use: Medicine and Vegetable. RS: DMS 3266 (DACB). **Fig. 44.**

ACANTHACEAE A.Juss.

Asystasiella neesiana (Wall.) Lindau, Nat. Pflanzenfam. 4(3b): 326 1895. *Asystasia neesiana* Nees, LN: *Jayanishi*. Perennial woody herb, occasionally occurs in shady deep forest along streams. Fl. & fr.: July-January. Use: Medicine. RS: DMS 3241 (DACB).

Codonacanthus pauciflorus (Nees) Nees, Prodr. 11: 103. 1847. *Asystasia pauciflora* Nees, LN: Belfuli. Annual herb, very rarely occurs in shady area of forest bed. Fl. & fr.: March-August. RS: DMS 2781 (DACB).

Eranthemum strictum Colebr. ex Roxb., Fl. Ind. 1: 114. 1820. LN: *Shukh murali*. Perennial herb, occasionally occurs in dry sunny areas. Fl. & fr.: February-April. RS: DMS 2776, 2350 (DACB).

Hygrophila ringens (L.) R.Br. ex Spreng., Syst. Veg. 2: 828. 1825. LN: *Kakmasha*. Woody herb, occasionally occurs in moist and marshy places. Fl. & fr.: November-March. RS: DMS 4166 (DACB).

Justicia gendarussa Burm.f., Fl. Indica 10. 1768. *Dicliptera rheedei* Kostel. LN: *Nilnishinda*, *Jagatmadam*. Shrub, commonly occurs in forest edges mainly fallow areas. Fl. & fr.: December-May. Use: Medicine. RS: DMS 3410 (DACB).

Lepidagathis incurva Buch.-Ham. ex D.Don, Prodr. Fl. Nepal: 119. 1825. Perennial herb, commonly occurs in moist damp areas. Fl. & fr.: March-May. RS: DMS 2777 (DACB).

Lepidagathis linearis T. Anderson, J. Linn. Soc., Bot. 9: 496. 1867. Perennial herb, commonly occurs in forest beds mainly dry areas. Fl. & fr.: March-May. RS: DMS 2777 (DACB).

Nelsonia canescens (Lam.) Spreng., Syst. Veg. 1: 42. 1824. LN: *Paramul*. Herb, commonly occurs in forest bed mainly dry areas. Fl. & fr.: October-February. RS: DMS 2815 (DACB).

Peristrophe sp. Perennial herb, very rarely occurs in open place along hill sides. Fl. & fr.: September-January. RS: DMS 2775 (DACB)

Phaulopsis dorsiflora (Retz.) Sant. Kew Bull. 1948: 276. 1948. *Micranthus dorsiflorus* (Retz.) C.E.C. Fisch. LN: *Paulsi*. Perennial herb, commonly occurs in forest beds mainly dry areas. Fl. & fr.: January-August. RS: DMS 2735 (DACB).

Phlogacanthus curviflorus (Wall.) Nees, Pl. Asiat. Rar. 3: 99. 1832. *Justicia curviflora* Wall. Shrub, occasionally occurs in hill slopes and moist shady areas near streams. Fl. & fr.: October-March. Use: Ornamental. RS: DMS 3227 (DACB). **Fig. 38.**

Pseuderanthemum latifolium B. Hansen, *Nordic J. Bot.*, 9(2): 213. 1989. *Eranthemum palatiferum* (Wall.) Nees. Shrub, occasionally occurs shady place of forest thickets. Fl. & fr.: April-August. RS: DMS 2222 (DACB).

Strobilanthes glomerata (Nees) T. Anderson, *J. Linn. Soc., Bot.* 9: 475. 1867. Shrub, commonly occurs in forest edges and thickets. Fl. & fr.: July-December. RS: DMS 3429 (DACB). **Fig. 46.**

Strobilanthes scaber Nees, *Pl. Asiat. Rar.* 3. 84. 1832. LN: *Holud kolki phul*. Perennial herb, occasionally occurs in scrub forest and thickets. Fl. & fr.: January-April. RS: DMS 3296 (DACB).

Thunbergia grandiflora (Roxb. ex Rottl.) Roxb., *Bot. Reg.* 6: 6. 1820. LN: *Nil lata*. Woody climber, occasionally found associated with other plants. Fl. & fr.: December-April. Use: Medicine & Ornamental. RS: DMS 2300 (DACB).

BIGNONIACEAE A.Juss.

Stereospermum tetragonum DC., *Biblioth. Universelle Genève n.s.* 17: 124. 1838. *Stereospermum colais* (Buch.-Ham.) Mabb. LN: *Dharmara, Pahari-awal, Atkapali*. Deciduous tree, rarely occurs in forest edges. Fl. & fr.: April-November. Use: Timber. RS: DMS 3458 (DACB).

Oroxylum indicum (L.) Kurz, *Forest Fl. Burma* 2: 237. 1877. *Bignonia indica* L. LN: *Kanaidingi, Sanapatha, Shona*. Deciduous trees, occasionally occurs in scrub forest and forest thickets. Fl. & fr.: June-March. Use: Vegetable & Medicine. RS: DMS 3436 (DACB).

RUBIACEAE A.Juss.

Catunaregam spinosa (Thunb.) Tirveng, *Bull. Mus. Natl. Hist. Nat., Sér. 3, Bot.* 35: 13. 1978. *Canthium chinense* Pers. LN: *Mainkanta, Manphal*. Shrub, commonly grows on plain land and hill slopes. Fl. & fr.: October-January. Use: Medicine. RS: DMS 3424 (DACB).

Hedyotis vestita R.Br. ex G. Don, *Gen. Hist.* 3: 526. 1834. Annual herb, rarely occurs in open forest and sunny areas. Fl. & fr.: Throughout the year. RS: Syedur 3737 (DACB).

Hedyotis neesiana Arn., *Nova Acta Acad. Caes. Leop.-Carol. German. Nat. Cur.* 18: 341. 1836. Annual herb, rarely occurs in forest bed mainly shady areas. Fl. & fr.: June-January. Use: Medicine. RS: DMS 3977, 4099 (DACB).

Ixora nigricans R.Br. ex Wight & Arn., *Prodr.* 1: 428. 1834. LN: *Dikranga*. Shrub, rarely grows in deep forest. Fl. & fr.: April-January. Use: Medicine. RS: DMS 2381 (DACB). **Fig. 21.**

Lasianthus attenuatus Jack, *Trans. Linn. Soc. London* 14: 126. 1823. LN: *Kharalaci*. Shrub, rarely occurs in wet places near Chhara. Fl. & fr.: April-July. RS: Syedur 3702 (DACB). **Fig. 37.**

Mitracarpus hirtus (L.) DC., *Prodr.* 4: 572. 1830. LN: *Tupi kadam*. Annual herb, commonly occurs in open sunny places. Fl. & fr.: September-March. RS: DMS 4071 (DACB).

Morinda angustifolia Roxb., *Pl. Coromandel* 3: 32. 1815. LN: *Bano mali*. Shrub, commonly occurs in scrub forest, trails and forest edges. Fl. & fr.: December-September. Use: Medicine. RS: DMS 2772 (DACB).

Mussaenda glabra Vahl, *Symb. Bot.* 3: 38. 1794. *Mussaenda frondosa* var. *glabra* (Vahl) Miq. LN: *Nagabali, Patra lekha*. Shrub, occasionally occurs in hill sides. Fl. & fr.: March-September. Use: Ornamental & Medicine. RS: DMS 3378 (DACB).

Mussaenda macrophylla Wall. in Roxb., *Fl. Ind.* 2: 228. 1824. LN: *Poparifro*. Shrub, occasionally occurs in hill slope and near streams. Fl. & fr.: May-November. RS: DMS 2335 (DACB).

Mussaenda roxburghii Hook.f., Fl. Brit. Ind. 3: 87. 1880. LN: *Silchauri, Sildauro*. Shrub, commonly occurs in scrub forest, hill slope and near stream. Fl. & fr.: May-February. Use: Medicine. RS: DMS 3275, 4160 (DACB). **Fig. 30.**

Mycetia longifolia (Wall.) Kuntze, Revis. Gen. Pl. 1: 289 1891. *Rondeletia longifolia* Wall. Shrub, commonly occurs in dense forest, hill slopes along water course. Fl. & fr.: July-November. RS: DMS 2261, 3264 (DACB). **Fig. 31.**

Myrioneuron nutans Wall. ex Kurz, Forest Fl. Brit. Burma 2: 55. 1877. Shrub, occasionally occurs in hill slopes, forest thickets and near streams. Fl. & fr.: September-February. RS: DMS 4067 (DACB). **Fig. 32.**

Oldenlandia auricularia (L.) K.Schum., Nat. Pflanzenfam. 4(4): 25. 1891. *Hedyotis auricularia* L. LN: *Mutia Lata*. Annual herb, commonly occurs in open areas, rocky slopes and wet marshy areas. Fl. & fr.: October-February. Use: Medicine. RS: DMS 2266 (DACB).

Oldenlandia diffusa (Willd.) Roxb., Hort. Bengal. 11. 1814. *Hedyotis diffusa* Willd. Herb, commonly grows on moist humid areas along water bodies. Fl. & fr.: July-December. RS: DMS 2283 (DACB).

Oldenlandia verticillata L., Mant. Pl. 1: 40. 1767. *Hedyotis verticillata* (L.) Lam. Perennial herb, commonly grows on moist soil and forest clearing areas. Fl. & fr.: July-April. RS: DMS 2226 (DACB).

Ophiorrhiza mungos L., Sp. Pl. 150. 1753. LN: *Kalasona*. Perennial herb, commonly occurs on hill slope and moist places. Fl. & fr.: Throughout the year. Use: Medicine. RS: DMS 2772, 4248 (DACB). **Fig. 33.**

Psychotria silhetensis Hook.f., Fl. Brit. India 3: 174. 1880. *Uragoga silhetensis* (Hook. f.) Kuntze, Revis. Shrub, commonly occurs in hill slopes near chhara. Fl. & fr.: April-January. RS: DMS 2247 (DACB). **Fig. 42.**

Spermacoce alata Aubl., Hist. Pl. Guiane 60. 1775. *Spermacoce latifolia* Aubl. LN: *Ghuijhil Shak*. Perennial herb, commonly occurs in open forest areas and forest margins. Fl. & fr.: December-April. Use: Medicine. RS: DMS 3337 (DACB).

Spermacoce exilis (L.O.Williams) C.D.Adams ex W.C. Burger & C.M.Taylor, Fieldiana, Bot. n.s., 33: 316. 1993. Herb, occasionally occurs on hill slopes in sunny areas. Fl. & fr.: Throughout the year. Use: Medicine. RS: DMS 4100, 4150 (DACB).

ASTERACEAE Martinov

Acmella calva (DC.) R.K. Jansen, Syst. Bot. Monogr. 8: 41. 1985. *Spilanthes calva* DC. in Wight. LN: *Nag phul, Surja kannya*. Perennial herb, occasionally occurs in open areas. Fl. & fr.: Throughout the year. RS: DMS 2814 (DACB).

Ageratum conyzoides L., Sp. Pl.: 839. 1753. LN: *Ochunti, Fulkuri*. Herb, occasionally occurs in open areas. Fl. & fr.: November-June. Use: Medicine. RS: DMS 2357, 4056 (DACB).

Blumea lanceolaria (Roxb.) Druce, Bot. Soc. Exch. Club Br. Isles 4: 609. 1916. *Conyza lanceolaria* Roxb. LN: *Borotara*. Herb, commonly occurs in hill slopes, scrub forests and near trails. Fl. & fr.: November-July. Use: Medicine. RS: DMS 3236 (DACB). **Fig. 7.**

Blumea membranacea DC., Prodr. 5: 440. 1836. *Blumea balansae* Gagnep. Herb, occasionally grows in both shady and sunny areas. Fl. & fr.: January-March. RS: DMS 2796 (DACB).

Caesulia axillaris Roxb., Pl. Coromandel 1. 1798. Herb, occasionally grows on shallow moist areas. Fl. & fr.: November-April. RS: DMS 3774 (DACB).

Cyanthillium cinereum (L.) H. Rob., Proc. Biol. Soc. Wash. 103: 252. 1990. *Vernonia cinerea* (L.) Less. LN: *Kuksim*. Herb, occasionally occurs near forest trails. Fl. & fr.: Throughout the year. Use: Medicine. RS: DMS 2827, 2358 (DACB).

Chromolaena odorata (L.) R.M. King & H. Rob., Phytologia 20: 204. 1970. *Eupatorium odoratum* L. LN: *Jarman lata*, *Tofaina lata*. Herb, commonly occurs in throughout the forest areas. Fl. & fr.: November-May. Use: Medicine. RS: DMS 2370 (DACB).

Crassocephalum crepidioides (Benth.) S. Moore, J. Bot. 1: 211. 1921. LN: *Samapao*. Annual herb, occasionally occurs in hill slopes, and sunny areas. Fl. & fr.: September-May. RS: DMS 4101 (DACB).

Elephantopus scaber L., Sp. Pl.: 814. 1753. LN: *Shamdulam*. Perennial herb, commonly occurs in forest beds. Fl. & fr.: November-March. Use: Medicine. RS: DMS 2225 (DACB).

Emilia sonchifolia (L.) DC. in Wight, Contrib.: 24. 1834. LN: *Sadimudi*, *Fao-ma*. Annual herb, occasionally occurs in foot hill and open areas. Fl. & fr.: Throughout the year. Use: Medicine. RS: DMS 3995 (DACB).

Erigeron floribundus (Kunth) Sch. Bip., "Mandon, Bull. Soc. Bot. France 12: 81. 1865. *Conyza flahaultiana* Sennen. Perennial herb, commonly occurs in sunny hill slope. Fl. & fr.: February-November. RS: DMS 2209 (DACB).

Mikania cordata (Burm.f.) B.L. Rob., Contr. Gray Herb. 104: 65. 1934. LN: *Assam lata*. Climber, very commonly grows on bushy jungle associated with other plants. Fl. & fr.: October-February. Use: Medicine. RS: DMS 3319 (DACB).

Youngia japonica (L.) DC., Prodr. 7(1): 194. 1838. LN: *Matitara*, *Morogphul*. Annual herb, occasionally occurs in thickets near trails. Fl. & fr.: August-July. RS: DMS 2759 (DACB).

Abbreviations: LN= Local name; Fl. & fr.= Flowering and fruiting period; RS= Representative specimen.

Discussion

The study has found that eleven families have ten or more than ten species (Fig. 50), *viz.* Euphorbiaceae (28 species), Rubiaceae (19 species), Poaceae (18 species), Acanthaceae (15 species), Asteraceae (13 species), Commelinaceae (11 species), Moraceae (11 species), Araceae (11), Arecaceae (10 species), Fabaceae (10 species), Cyperaceae (10 species), and Verbenaceae (10 species). On the other hand, *Ficus* appears as the largest genus representing with 8 species followed by *Dioscorea* with 6 species and *Cyperus*, *Murdannia*, *Phyllanthus*, *Piper* with 5 species each.

Plant species occurring in the study area has been categorized under four broad life forms *viz.* tree, shrub, herb, & climber. Among those life forms, the largest number of species fall under herbaceous group (168 species), followed by shrub (101 species), tree (89 species) and climber (44 species). Herbaceous species has the highest percentage (41.79%) followed by shrubs (25.12 %), tree species (22.14 %), and climbers (10.95 %). This analysis shows clear dominance of herbaceous taxa over other life forms in the study area. Out of 402 taxa identified 332 (82.59%) are belong to perennial and 70 (17.41%) are annual.

The flora of the study area has been categorized based on leaf-fall (*viz.* evergreen and deciduous). The analysis shows that the number of evergreen species is 367 and that of deciduous is 35 only. The percentage of evergreen species is over 91% and that of deciduous species is below 9%. Out of 89 tree species 60.67 % (54 species) are evergreen while 39.33% (35 species) are

deciduous. From this analysis, it can be clearly shown that evergreen species is strongly dominated over the deciduous ones and this is a semi evergreen type of forest.

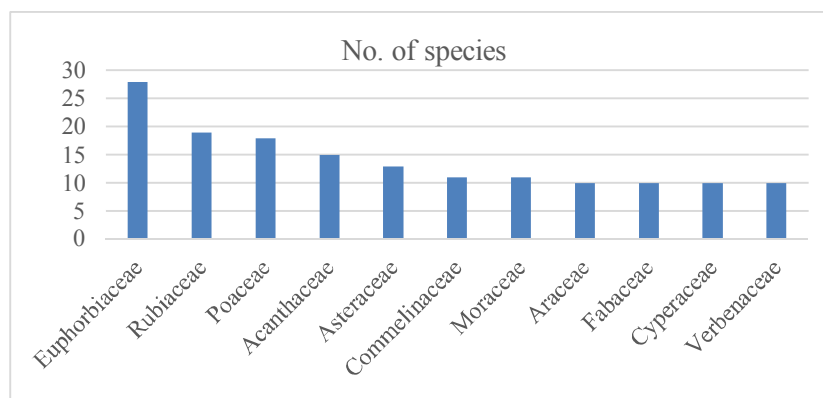


Fig. 50. Collum showing eleven dominant families.

In this study, status of occurrence has been assessed for proper conservation management and sustainable utilization of the natural resources of the forest. Out of 402 species 43 species are planted and 359 are wild or naturalized in forest. On the other hand, out of 359 wild or naturalized species 11 species (3.06%) are found to be very rare, 63 species (17.55%) are rare while 166 species (46.24%) are occasional, 104 species (28.97%) are common and 15 species (4.18%) found very common.

During this survey, approximately 1800 plant samples have been collected from the study areas, after critical examination 2 species viz. *Asystasiella neesiana* Lindau, (Acanthaceae); *Cissampelos glaberrima* A.St.-Hil. (Menispermaceae) have been discovered as new records for the country and one species *Impatiens laevigata* Wall. ex Hook.f. & Thomson (Balsaminaceae) rediscovered for Bangladesh after two hundred years.

There are 22 villages within the KHNP, of which there are 3038 families with 31,937 people (Ahsan *et al.*, 2016). Most of the people are depended on forest land and forest resources for timber, fire-wood, fodder, bamboo, cane, fruits, vegetables, medicine plant etc. The study found that 273 plant species (over 68% of the total flora) have either known economical or ecological values. Over 140 plants are used medicinally by the local peoples for their primary health care. Besides that 34 species have ornamental value, 30 species have timber value, 25 species have fruit value, 22 species have fire-wood value, 15 species have vegetables value, 15 species have fodder value, 8 species have wildlife supportive value, 7 species have fibre value and 4 species edible oil value.

References

- Ahmed, Z.U., Begum, Z.N.T., Hassan, M.A., Khondker, M., Kabir, S.M.H., Ahmed, M., Ahmed, A.T.A., Rahman, A.K.T. and Haque, E.U. (eds.). 2008. *Encyclopedia of Flora and Fauna of Bangladesh*, Vol. 6. Asiatic Soc. Bangladesh, Dhaka. pp. 1-408.
- Ahmed, Z.U., Hassan, M.A., Begum, Z.N.T., Khondker, M., Kabir, S.M.H., Ahmed, M., Ahmed, A.T.A., Rahman, A.K.T. and Haque, E.U. (eds.). 2008a. *Encyclopedia of Flora and Fauna of Bangladesh*, Vol. 7. Asiatic Society of Bangladesh, Dhaka. pp. 1-546.

- Ahmed, Z.U., Hassan, M.A., Begum, Z.N.T., Khondker, M., Kabir, S.M.H., Ahmed, M., Ahmed, A.T.A. and Rahman, A.K.T. (eds.). 2008b. *Encyclopedia of Flora and Fauna of Bangladesh*, Vol.-8. Asiat. Soc. Bangladesh, Dhaka. pp. 1-478.
- Ahmed, Z.U., Hassan, M.A., Begum, Z.N.T., Khondker, M., Kabir, S.M.H., Ahmed, M. and Ahmed, A.T.A. (eds.). 2009. *Encyclopedia of Flora and Fauna of Bangladesh*, Vol. 9. Asiat. Soc. Bangladesh, Dhaka. pp. 1-488.
- Ahmed, Z.U., Hassan, M.A., Begum, Z.N.T., Khondker, M., Kabir, S.M.H., Ahmed, M. and Ahmed, A.T.A. (eds.). 2009a. *Encyclopedia of Flora and Fauna of Bangladesh*, Vol. 10. Asiat. Soc. Bangladesh, Dhaka. pp. 1-580.
- Ahmed, Z.U., Hassan, M.A., Begum, Z.N.T., Khondker, M., Kabir, S.M.H., Ahmed, M., Ahmed, A.T.A., Rahman, A.K.T. & Haque, E.U. (eds.). 2008c. *Encyclopedia of Flora and Fauna of Bangladesh*, Vol. 12. Asiat. Soc. Bangladesh, Dhaka. pp. 1-552.
- Ahsan, M.M., Aziz, N. and Morshed, H.M. 2016. Assessment of management effectiveness of protected areas of Bangladesh. *SRCWP Project. Bangladesh Forest Department*.
- Alam, M.K. 1988. Annotated Checklist of the Woody Flora of Sylhet Forest. Bull. 5. Plant Taxonomy Series, Bangladesh Forest Research Institute, Chittagong. pp. 1-153.
- Alam, M.K. 1998. Documentation of Ethnobiological Information. In: Banik, R.L., Alam, M.K., Peil, S. and Rastogi, A. (eds.). *Applied Ethnobotany*. Bangladesh Forest Research Institute, Chittagong. pp. 28-29.
- Ara, S.H., Limon, M.H. and Kibria, M.G. 2021. Distributional pattern of tree species in response to soil variables in a semi natural tropical forest of Bangladesh. *J. Forest Environ. Sci.* **37**(1):14-24.
- Arefin, M.K., Rahman, M.M., Uddin, M.Z., and Hassan, M.A. 2011. Angiosperm flora of Satchari National Park, Habiganj, Bangladesh. *Bangladesh J. Plant Taxon.* **18**(2): 117-140.
- BBS/UNDP, 2005. Compendium of Environment statistics of Bangladesh. Bangladesh Bureau of Statistics/United Nations Development Programme, Ministry of Planning, Government of Bangladesh, Dhaka.
- Brandis, D. 1906. (Repr. 1984). *Indian trees: An account of trees, shrubs, woody climbers, bamboos, and palms indigenous or commonly cultivated in the British Indian Empire*. London: A. Constable & Co. Bishen Singh Mahendra Pal Singh, Dehra Dun, India.
- Cronquist, A. 1981. *An integrated system of classification of flowering plants*, Columbia University Press, New York, pp. 1-1262.
- Das, D.K. and Alam, M.K. 2001. *Trees of Bangladesh*. Bangladesh Forest Research Institute, Chittagong, pp.1-342.
- Harun-Ur-Rashid, M., Islam, S. and Kashem, S. 2018. Floristic diversity (Magnoliids and Eudicots) of Baraiyadhala National Park, Chittagong, Bangladesh. *Bangladesh J. Plant Taxon.* **25**(2): 273-288.
- Hasan, M.M., Hossain, S.A., Ali, A.M. and Alamgir, A.N.M. 2014. Medicinal plant diversity in Chittagong, Bangladesh: A database of 100 medicinal plant. *J. Sci. Innov. Res.* **3**(5): 500-514.
- Hooker, J.D. 1872-1897. *The Flora of British India*, Vol. 1-7. Bishen Singh Mahendra Pal Singh, Dehra Dun, India.
- Hossen, S. and Hossain, M. 2018. Conservation status of tree species in Himchari National Park of Cox's Bazar, Bangladesh. *J. Biodiver. Conserv. Bioresou. Manage.* **4**(2): 1-10.
- Huq A.M., 1986. *Plant names of Bangladesh*. Bangladesh National Herbarium (BARC), Dhanmondi, Dhaka. pp. 1-289.
- IPNI 2008. The International Plant Names Index. <www.ipni.org>. Retrieved on different times from 2021-2022.
- IUCN, 1994. *Guidelines for Protected Area Management Categories*, The World Conservation Union, Cambridge.
- Kanjilal, U.N., Kanjilal, P.C. and Das, A. 1938 (Rep. 1982). *Flora of Assam*, Vol. 1. A Von Book Company, Delhi, India. pp. 266-267.
- Khan, M.S. and Huq, A.M. 2001. The vascular flora of Chunati Wildlife Sanctuary in south Chittagong, Bangladesh. *Bangladesh J. Plant Taxon.* **8**(1): 47-64.

- Khan, M. S., Rahman, M.M., Huq, A.M., Mia, M.M.K. and Hassan, M.A. 1994. Assessment of Biodiversity of Teknaf Game Reserve in Bangladesh focusing on economically and ecologically important plant species. *Bangladesh J. Plant Taxon.* **1**(1): 21-33.
- Kramer, K.U., Green, P.S. and Kubitzki, K. 1990. *The families and genera of vascular plants. (Pteridophytes and gymnosperms)*, V. 1. Springer-Verlag. Berlin.Germany.
- Kurz, S. 1877 (Rep. 1974). *Forest Flora of British Burma*, Vol. 1 & 2. Bishen Singh Mahendra Pal Singh and Periodical Experts, India.
- Limon, M.H., Ara, S.H. and Kibria, M.G. 2021. Factors Influencing the Natural Forest Regeneration at Khadimnagar National Park, Bangladesh. *Borneo J. Resou. Sci. Technol.* **11**(1): 73-83.
- Mahfuz-Ur-Rahman, M. and Dey, T. 2021. Challenges of Conserving and Co-Managing Khadimnagar National Park and Ratargul Fresh Water Swamp Forest in Bangladesh. *J. Forests* **8**(2):171-181.
- Mohammad, A., Sarkar, M.S.H., Sohel, M.S.I. and Sayma, A. 2011. Tree diversity and biodiversity conservation potentials in Khadimnagar National Park of Bangladesh. *Tigerpaper*, **38**(2):20-28.
- Pasha, M.K. and Uddin, S.B. 2019. Minor edible fruits of Bangladesh. *Bangladesh J. Plant Taxon.* **26**(2): 299-313.
- Prain, D. 1903. *Bengal Plants*. Vol. 1 & 2 (Ind. repr. 1981). Bishen Singh Mahendra Pal Singh, Dehra Dun, India.
- Rahaman, M.A., Rahman, M.A. and Uddin, M.Z. 2017. Diversity of Angiosperm Flora of Kuakata National Park, Patuakhali District, Bangladesh. *J. Asiat. Soc. Bangladesh, Sci.* **43**(2): 143-159.
- Rahman, H., Rahman, M., Islam, M. and Reza, S. 2011. The importance of forests to protect medicinal plants: a case study of Khadimnagar National Park, Bangladesh. *Int. J. Biodiver. Sci. Ecosys. Serv. Manage.* **7**(4): 283-294.
- Rahman, M.H., Khan, M.A. S.A., Fardusi, M.J. and Roy, B. 2010. Status, distribution and diversity of invasive forest undergrowth species in the tropics: a study from northeastern Bangladesh. *J. Forest Environ. Sci.* **26**(3):149-159.
- Rahman, M.H., Roy, B. and Islam, M.S. 2021. Contribution of non-timber forest products to the livelihoods of the forest-dependent communities around the Khadimnagar National Park in northeastern Bangladesh. *Regional Sustainability*, **2**(3): 280-295.
- Rahman, M.M., Rahman, M.M. and Huda, M.K. 2020. Tree species diversity of the Kaptai National Park in Rangamati district, Bangladesh. *Jahangirnagar Univer. J, Biol. Sci.* **8**(2): 71-79.
- Rahman, M.R., Hossain, M.K. and Hossain, M.A. 2019. Diversity and composition of tree species in Madhupur National Park, Tangail, Bangladesh. *Jo. Forest Environ. Sci.* **35**(3): 159-172.
- Rahman, M.H., Khan, M.A.S.A. and Fardusi, M.J., Roy, B. and Anik, S.I. 2011. Forest Resources Consumption by the Patra Tribe Community Living in and around the Khadimnagar National Park, Bangladesh. *Int. J. Forest Usufructs Manage.* **12**: 95-111.
- Rahman, M.H., Roy, B. and Islam, M.S. 2021. Contribution of non-timber forest products to the livelihoods of the forest-dependent communities around the Khadimnagar National Park in northeastern Bangladesh. *Regional Sustainability*, **2**(3):280-295.
- Rahman, M.O. and Hassan, M.A. 1995. Angiospermic flora of Bhawal National Park, Gazipur (Bangladesh). *Bangladesh J. Plant Taxon.* **2**(1&2): 47-79.
- Rahman, N., Sarker, A.A. and Uddin, N.S. 2018. One hundred and three new additions to the angiosperm flora of Lawachara National Park, Bangladesh. *Bull. Bangladesh National Herb.* **6**: 71-88.
- Redowan, M., Akter, R., Islam, M., Masum, K.M. and Chowdhury, M.S.H. 2015. Estimating growing stock volume in a Bangladesh forest site using Landsat TM and field-measured data. *Int. J. Geom. Geosci.* **6**(2):1607-1619.
- Redowan, M., Akter, S. and Islam, N. 2014. Analysis of forest cover change at Khadimnagar National Park, Sylhet, Bangladesh, using Landsat TM and GIS data. *J. Fores. Res.* **25**(2): 393-400.
- Saimun, M.S.R., Karim, M.R., Sultana, F. and Arfin-Khan, M.A. 2021. Multiple drivers of tree and soil carbon stock in the tropical forest ecosystems of Bangladesh. *Trees, Forests and People.* **5**:100-108.

- Sarker, S. K. 2016. *Tree acquisitive traits responses to environment at Khadimnagar National Park* (Doctoral dissertation, Shahjalal University of Science and Technology, Sylhet-3114, Bangladesh).
- Sobuj, N.A. and Rahman, M. 2011. Assessment of plant diversity in Khadimnagar National Park of Bangladesh. *Int. J. Environ. Sci.* **2**(1): 79-91.
- The Plant List, 2013. *The Plant List, a working list of all plant species*. Version 1.1 < [http://www. the-plantlist.org/](http://www.the-plantlist.org/)>. Rtrived on 05 January 2022.
- TROPICOS 2010. Missouri Botanical Garden. < <http://www.tropicos.org/>>. Missouri Botanical Garden, Saint Louis, Missouri, USA. Retrieved on 11 March 2020.
- Uddin M.Z., Hassan, M.A. and Khan, M.S. 2003. An Annotated Checklist of angiospermic flora of Rema-Kalenga Wildlife Sanctuary (Habiganj) in Bangladesh-11a. Magnoliopsida (Dicots). *Bangladesh J. Plant Taxon.* **10**(1): 79-94.
- Uddin M.Z., Hassan, M.A. and Khan, M.S. 2002. An Annotated Checklist of Angiospermic flora of Rema-Kalenga Wildlife Sanctuary (Habiganj) in Bangladesh-1. Liliopsida (Monocots). *Bangladesh J. Plant Taxon.* **9**(2): 57-66.
- Uddin, M.Z. 2015. Plant Diversity Assessment in Khadimnagar National Park, Sylhet. 10.13140/RG.2.2.11459.91682.
- Uddin, M.Z., and Hassan, M.A. 2010. Angiosperm diversity of Lawachara National Park (Bangladesh): a preliminary assessment. *Bangladesh J. Plant Taxon.* **17**(1): 9-22.
- Uddin, M.Z. and Hassan, M.A. 2004. Flora of Rema-Kalenga Wildlife Sanctuary. IUCN Bangladesh Country Office, Dhaka, Bangladesh. pp.120
- Uddin, N.S. and Rahman, N. 2021. Floral Composition of Kaptai National Park under Rangamati districts in Bangladesh. *Bull. Bangladesh National Herb.* **7**: 71-88.
- Uddin, S. N. 2006. In: Rahman, M.M. *Traditional uses of the ethno medicinal plants of the Chittagong Hill Tracts*. Bangladesh National Herbarium, Dhaka. pp. 1-992.
- Uddin, S.B. and Rahman, M.A. 1999. Angiospermic Flora of Himchari National Park, Cox's Bazar. *Bangladesh J. Plant Taxon.* **6** (1): 31-68.
- Uddin, S.N. and Hassan, M.A. (eds.) 2018. *Vascular flora of Chittagong and the Chittagong Hill tracts*. Vols. 1-3. Bangladesh National Herbarium.
- Uddin, S.N., Khan, M.S., Hassan, M.A. and Alam, M.K. 1998. An Annotated Checklist of Angiospermic Flora of Sita Pahar at Kaptai in Bangladesh. *Bangladesh J. Plant Taxon.* **5**(1): 13-46.
- Wu, C.Y., Raven, P.H. and Hong, D.Y. (eds.) 1995-2013. *Flora of China*, Vol. 2-25. Science Press and Missouri Botanical Garden Press, Beijing and St. Louis.
- Yusuf, M. Begum, J., Hoque, M.N and Choudhury, J.U. 2009. *Medicinal plants of Bangladesh-Revised and enlarged*. Bangladesh Council for Scientific and Industrial Research Laboratories Chittagong, Chittagong-4220, Bangladesh.