ANGIOSPERMS IN NARSINGDI DISTRICT OF BANGLADESH: CLASS MAGNOLIOPSIDA

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Keywords: Angiosperms; Magnoliopsida; Narsingdi; Bangladesh.

Abstract

This study presents taxonomic information on 468 plant species belonging to 326 genera and 85 families of the angiospermic class Magnoliopsida (dicotyledones) from Narsingdi district of Bangladesh. In this area, Fabaceae with 53 species of 37 genera is the largest family, followed by Asteraceae with 25 species of 24 genera and Rubiaceae with 21 species of 17 genera. Ficus with eight species is appeared as the largest genus, which is followed by Persicaria and Solanum with seven species each, Lindernia with six species, Physalis with five species, and Acacia, Amaranthus, Senna, Sida and Trichosanthes with four species each. Herbs are comprised of 230 (49.14%) species that are followed by trees of 120 (25.64%) species, and shrubs of 118 (25.21%) species. The similarity measured by Jaccard coefficient shows that the six upazilas of Narsingdi district are relatively more similar (75.47%) if they are compared all together. However, the similarities vary from 9.03% to 50% if only two upazilas are compared. In this district, total 333 species have been distinguished as economically useful. The species Rauvolfia serpentina of Apocynaceae, Geophila repens of Rubiaceae and Acmella radicans of Asteraceae have been assessed as Endangered (E) in this district.

Introduction

Bangladesh constitutes a significant part of the South Asian Mega Centre of genetic diversity (Chowdhury, 1996), and supports a rich biodiversity including a huge number (approx. 5000) of Angiosperm species (Khan, 1977). However, Angiosperms of many areas of this country have so far been poorly or partially explored or unexplored. Therefore, performing taxonomic studies in these areas is essential to know the status of plant resources of this country.

Narsingdi is one of the central districts of Bangladesh, located at 50 km northeast of the capital city Dhaka. Some of the previous floristic studies cover the area of the present political boundary of Bangladesh (Prain, 1903; Hooker, 1872-1897; Ahmed et al., 2008-2009). Many other studies were conducted in the different areas of this country (Rahman and Hassan, 1995; Rashid, et al., 1995; Rashid and Mia, 2001; Khan and Huq 2001; Alam et al. 2006; Islam et al. 2009; Tutul et al. 2010; Arefin et al. 2011; Rahman et al. 2012; Rahman, 2013; Sarker et al. 2013; Rahman et al. 2015; Haque et al., 2016, 2018; Shetu et al. 2018). However, the flora and plant diversity of Narsingdi district have not yet been studied based on field inventories and examination of plant specimens. Moreover, this district is also one of the most risk prone areas of Bangladesh because most of its areas harboring the natural vegetation are continuously being replaced by urbanization with numerous infrastructures, industrialization, habitat fragmentation, agricultural expansion and other human interventions. Therefore, there is a great need for conducting a detail floristic study throughout this district.

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This study has been carried out to construct a taxonomic checklist of the angiosperms under the class Magnoliopsida (dicotyledones) of Narsingdi district based on thorough taxonomic inventories throughout the area to serve as a taxonomic baseline on the current status of the species of this plant group in this area, contribute in further studies on the change in floristic composition, plant species diversity and vegetation, help in adopting appropriate biodiversity conservation initiatives and promote plant resource-based socioeconomic development projects in this area.

Materials and Methods

Narsingdi district, comprised of an area of 1140.76 sq km and located in between 23º46’N and 24º15’N and 90º34’E and 90º59’E, is a part of the Dhaka division. It is bordered by Kishoreganj district in the north and northeast, Brahmanbaria district in the east and southeast, Narayanganj district in south and southwest and Gazipur district in the west. This district is consists of six upazilas, namely Belabo, Monohardi, Narsingdi Sadar, Palash, Raipura, and Shibpur. The area is composed of mostly plain lands including numerous agricultural fields, a vast and densely industrial area housing many textile and jute mills etc., a huge fallow lands and homestead areas, many low- and wet lands and some small hills. It includes a total of 89045 hectares of cultivable land and 22154 hectares of fallow land. The maximum annual average temperature in this area is 36°C, the minimum is 12.7°C and the annual rainfall is 2376 mm. The main rivers crossing this district are Meghna, Arial Khan, Haridhoa, Kalagachhia and Paharia.

This study was based on a thorough taxonomic inventory comprised of 32 field trips conducted in different seasons of 2014-2019 throughout Narsingdi district. The collection, processing, drying and preservation of plant specimens were done following standard herbarium methods and techniques (Bridson and Forman, 1989; Singh and Subramaniam, 2008).

The representative plant specimens of all taxa were examined at Plant Systematics and Biodiversity Laboratory of Jahangirnagar University and Bangladesh National Herbarium (DACB). The identification of the specimens was completed consulting taxonomic descriptions and keys available in the relevant literatures (Hooker, 1872-1897; Prain, 1903; Kanjilal et al., 1934, 1938-1940; Nasir and Ali, 1980-2005; Wu and Raven, 1994-2001; Wu et al., 1999-2013), and by matching with the respective voucher specimens of DACB and Jahangirnagar University Herbarium (JUH). The relevant type images available in the web pages of different international herbaria, such as the Royal Botanic Gardens Kew (K), and the Conservatoire et Jardin botaniques de la Ville de Genève (G) etc., and illustration of Flora of China (Wu and Raven, 1994-2001; Wu et al., 1999-2013) were also matched. All voucher specimens have been preserved at JUH.

Nomenclatural informations were verified following Flora of China (Wu and Raven, 1994-2001; Wu et al., 1999-2013), IPNI (2017), The Plant List (2013) and TROPICOS (2017). The common names were collected from Huq (1986), Pasha and Uddin (2013), Ahmed et al. (2008-2009) and through interviews with the local people. The families have been arranged following Cronquist (1981), and the genera and species under each family alphabetically (Table 1). The economic uses of the species were recorded through interviews with the local people during the field surveys, and consulting the relevant literatures (Ghani, 1998; Van Valkenburg and Bunyapraphatsara, 2002; Ahmed et al., 2008-2009).

The extent of similarities in species composition in six upazilas of the study area was measured by Jaccard coefficient (Jaccard, 1912). Status of threatened plant species listed in Red Data Book of Vascular Plants of Bangladesh (Khan et al., 2001; Ara et al., 2013) was assessed through field observation and estimation on population size, distribution range and regeneration of each species in the area, collections and consulting the relevant IUCN guidelines (IUCN Standards and Petitions Committee, 2019).
Table 1. List of the species of Magnoliopsida (dicotyledones) extant in Narsingdi district, Bangladesh.

| Scientific name | Bangla name | Habit | Habitat | Distribution | Use    | RSE       |
|-----------------|-------------|-------|---------|--------------|--------|-----------|
| **MAGNOLIOPSIS** Brong. |             |       |         |              |        |           |
| Annona reticulata L. | Nona/Ata | Tree, s | FL, SJ | All upazilas | Fr     | Robayda 2959 |
| A. squamosa L. | Sharifa | Tree, s | FL, SJ | All upazilas | Fr     | Robayda 2422 |
| Miluosa velutina (Dunal) Hook. f. & Thomson | Gandhi Gajari | Tree, m | SJ | M, B, S | M, T | Robayda 2670 |
| Polyalthia longifolia (Sonnt.) Thwaites | Debdaru | Tree, l | RS | All upazilas | O, T | Robayda 697 |
| P. sabrosa (Roxb.) Thwaites | Kukuriam | Tree, t | FL, SJ | NS, B, M, S | Fr | Robayda 2528 |
| **LAURACEAE** Juss. |             |       |         |              |        |           |
| Cinnamomum tamala (Buch.-Ham.) T. Nees & Nees | Tejapata | Tree, m | FL | M, B, S | M, Sp | Robayda 3054 |
| Litsea glutinosa (Lour.) C.B. Rob. | Kukur Chita | Tree, m | RS, SJ | All upazilas | M, T | Robayda 2082 |
| L. monopetala (Roxb.) Pers. | Bara Kukurchita | Tree, m | RS, SJ | All upazilas | M | Robayda 2072 |
| Persea americana Mill. | Avocado | Tree, m | RS (pl) | P | Fr | Robayda 2959 |
| **PIPERACEAE** Giseke |             |       |         |              |        |           |
| Peperomia pellucida (L.) Kunth | Luchi pata | Herb, er | RS, FL | All upazilas | M | Robayda 945 |
| Piper betle L. | Pan | Herb, cl | ML (cu) | M, S, B | M | Robayda 1812 |
| P. longum L. | Pipul morich | Herb, e | RS, FL | NS, B, R, S | M | Robayda 3032 |
| P. sylvaticum Roxb. | Bon Pan | Herb, cl | RS, FL | All upazilas | M | Robayda 1223 |
| **ARISTOLOCHIACEAE** Juss. |             |       |         |              |        |           |
| Aristolochia indica L. | Ishwarmul | Shrub, cl | SJ | B, S, M | M | Robayda 2505 |
| **NELUMBONACEAE** A. Rich. |             |       |         |              |        |           |
| Nelumbo nucifera Gaertn. | Padma | Herb, aq | WL | NS, P, B | M | Robayda 3127 |
| **NYMPHAEEACEAE** Salisb. |             |       |         |              |        |           |
| Nymphea capensis Thunb. | Nil Shapla | Herb, aq | WL | NS, B, M, R | M | Robayda 2753 |
| N. pubescens Willd. | Shada Shapla | Herb, aq | WL | All upazilas | M, V | Robayda 2423 |
| N. rubra Roxb. ex Salisb. | Lal Shapla | Herb, aq | WL | NS, B, R | M | Robayda 2751 |
| **RANUNCULACEAE** Juss. |             |       |         |              |        |           |
| Naravelia zeylanica (L.) DC. | Chagul Bati | Herb, cl | SJ | M | - | Robayda 1074 |
| **MENISPERMACEAE** Juss. |             |       |         |              |        |           |
| Stephania japonica (Thunb.) Miers | Akanadi | Herb, cl | RS, SJ | All upazilas | M | Robayda 2164 |
| Tiliacora racemosa Colebr. | Bhag-lata | Shrub, cl | SJ, FL | NS, B, M, S | B &Th | Robayda 2106 |
| Tinospora crispa (L.) Hook. f. & Thomson | Gulancha | Shrub, cl | SJ, FL | B, S, M | M | Robayda 2571 |
| T. sinensis (Lour.) Merr. | Padma Gulancha | Shrub, cl | SJ, FL | B, NS, M | M | Robayda 2297 |
| **ULMACEAE** Mirb. |             |       |         |              |        |           |
| Holoptelea integrifolia Planch. | - | Tree, m | RS, SJ | All upazilas | - | Robayda 2171 |
| Trema orientalis (L.) Blume | Jiban | Tree, s | RS, SJ | All upazilas | Fw | Robayda 1365 |
| **MORACEAE** Gaudich. |             |       |         |              |        |           |
| Artocarpus heterophyllus Lam. | Kathal | Tree, l | FL | All upazilas | T, F | Robayda 60 |
| A. lakoocha Wall. ex Roxb. | Dewa | Tree, m | SJ | All upazilas | Fr, T, M | Robayda 2268 |
| Ficus benghalensis L. | Bot | Tree, m | RS, SJ | All upazilas | O, M | Robayda 1070 |
| F. benjamina L. | Pakur | Tree, s | RS (pl) | NS, S | O, Fw | Robayda 2450 |
| F. heterophylla L. f. | Bhu Dumur | Shrub | ML, RS | P, S | - | Robayda 1611 |
| F. hispida L. f. | Kak Dumur | Tree, s | SJ, RS | All upazilas | - | Robayda 69 |
| F. pumila L. | Lata Dumur | Herb, cl | RS (pl) | NS, B, S | O | Robayda 2787 |
| F. racemosa L. | Jagya Dumur | Tree, s | ML | All upazilas | T | Robayda 1523 |
| Scientific name | Bangla name | Habit | Habitat | Distribution | Use | RSE |
|-----------------|-------------|-------|---------|--------------|-----|-----|
| F. religiosa L. | Ashwath     | Tree, 1 | RS, FL  | All upazilas | T   | Robayda 1561 |
| F. ramphii      | Gai Ashwath | Tree, 1 | SJ      | All upazilas | T   | Robayda 1509 |
| Morus alba L.   | Tut         | Tree, m | ML      | M            | M   | Robayda 1266 |
| Stellaria asper | Sheora      | Tree, s | RS, ML  | All upazilas | M   | Robayda 873 |
| URTICACEAE      |             |       |         |              |     |     |
| Dendrocnide sinuata (Blume) Chew | Chuchra  | Shrub | SJ      | B            | Fb, Fw, M | Robayda 2172 |
| Laportea interrupta (L.) Chew  | Lal Bechuti | Herb, er | RS, FL | All upazilas | M   | Robayda 1653 |
| Pilea microphylla (L.) Liebm.  | Latamaricha | Herb, pr | FL     | All upazilas | M   | Robayda 1466 |
| Pozolzia zeylanica (L.) Benn. | Kullaruki  | Herb, er | RS, FL  | All upazilas | M   | Robayda 1985 |
| CASUARINACEAE   |             |       |         |              |     |     |
| Casuarina equisetifolia L. | Jhau    | Tree, 1 | RS (pl) | P, NS | O, T | Robayda 763 |
| NYCTAGINACEAE   |             |       |         |              |     |     |
| Boerhavia diffusa L. | Punarnava | Herb, RS | All upazilas | M   | Robayda 698 |
| Bougainvillea spectabilis Willd. | Bagabanlash | Shrub, cl | FL (pl) | All upazilas | O   | Robayda 1939 |
| Mirabilis jalapa L. | Sandhya Maloti | Herb, er | RS | All upazilas | M   | Robayda 346 |
| CACTACEAE       |             |       |         |              |     |     |
| Opuntia dillenii (Ker Gawl.) Haw. | Phanimanasa | Herb, er | FL (Pl) | All upazilas | O, M | Robayda 2922 |
| AMARANTHACEAE   |             |       |         |              |     |     |
| Achyranthes aspera L. | Apang | Herb, er | RS, ML | All upazilas | -   | Robayda 2152 |
| Alternanthera paronychioides A. St.-Hil. | Jhuli Khata | Herb, pr | RS, FL | NS, B, S | -   | Robayda 3043 |
| A. philoxeroides (Mart.) Griseb. | Malancha, Henchi | Herb, pr | WL, ML | All upazilas | V   | Robayda 881 |
| A. sessilis (L.) R. Br. ex DC. | Sacha shak | Herb, pr | RS, ML | All upazilas | M   | Robayda 2568 |
| Amaranthus luidus L. | Gobura Notey | Herb, er | FL (cu) | All upazilas | V   | Robayda 281 |
| A. spinosus L. | Kata Nate | Herb, er | RS | All upazilas | M   | Robayda 1661 |
| A. tricolor L. | Data | Herb, er | FL (cu) | All upazilas | V   | Robayda 3137 |
| A. viridis L. | Nate Shak | Herb, er | RS, FL | All upazilas | V, M | Robayda 1413 |
| Celosia cristata L. | Moragphul | Herb, er | FL | B, S, M, P | O, M | Robayda 2750 |
| Chenopodium album L. | Batua shak | Herb, er | AF | All upazilas | V, M | Robayda 1467 |
| C. ambrosioides L. | Chandan Betu | Herb, pr | RS, FL | NS, B | M   | Robayda 1286 |
| Cyathula prostrata (L.) Blume | Chaya Apang | Herb, pr | RS | All upazilas | M   | Robayda 2017 |
| Deerlinga amaranthoides (Lam.) Merr. | Golamohani | Herb, sc | FL | R | -   | Robayda 3084 |
| Gomphrena celosioides Mart. | - | Herb, pr | RS, FL | R, B | -   | Robayda 1984 |
| G. globosa L. | Botamphul | Herb, er | RS | NS, B | O, M | Robayda 2749 |
| PORTULACACEAE   |             |       |         |              |     |     |
| Portulaca oleracea L. | Lunia Shak | Herb, pr | RS, FL | All upazilas | V   | Robayda 2137 |
| P. quadrifida L. | Chhoto Lunia | Herb, pr | FL | B, S | V   | Robayda 2353 |
| P. grandiflora Hook. | Porchulaca | Herb, pr | RS | All upazilas | O   | Robayda 2508 |
| BASELLACEAE     |             |       |         |              |     |     |
| Basella rubra L. | Pui Shak | Herb, cl | FL | All upazilas | V   | Robayda 1667 |
| MOLLUGINACEAE   |             |       |         |              |     |     |
| Glinus oppositifolius (L.) Aug. DC. | Gema Shak | Herb, pr | RS, FL | M, B, P | V   | Robayda 1875 |
| CARYOPHYLLACEAE |             |       |         |              |     |     |
| Polycarpus prostratum (Forsk.) Asch. & Schweinf. ex Asch. | Ghima | Herb, pr | ML | NS, B, P | -   | Robayda 2033 |
| Stellaria media (L.) Vill. | Sada Phulki, Tara | Herb, er | FL | M, B | -   | Robayda 1809 |
| POLYNOGONACEAE  |             |       |         |              |     |     |
| Persicaria assamica (Meisn.) Sojak | Assami Bishkatali | Herb, er | ML | NS | -   | Robayda 2015 |
| Scientific name                  | Bangla name          | Habit    | Habitat              | Distribution | Use  | RSE       |
|----------------------------------|----------------------|----------|----------------------|--------------|------|-----------|
| *P. chinensis* (L.) H. Gross     | Mohicharan Shak      | Herb, er | RS                   | B, M         | -    | Robayda 2914 |
| *P. hydropiper* (L.) Delarbre    | Bishkatali           | Herb, er | ML                   | All upazilas M | Robayda 2678 |
| *P. lanata* (Roxb.) Tzelev       | Shet Panimorich      | Herb, er | ML                   | P, B         | -    | Robayda 1621 |
| *P. lapathifolia* (L.) Delarbre  | Panimorich           | Herb, er | ML                   | B, P, S, M   | Robayda 3028 |
| *P. minor* (Huds.) Opiz          | Chhoto Bishkatali    | Herb, er | ML                   | NS, P, B, S  | -    | Robayda 1169 |
| *P. orientalis* (L.) Spach       | Baro Panimorich      | Herb, er | WL                   | All upazilas M | Robayda 2482 |
| *Polygonum effusum* Meisn.       | Ranirephul           | Herb, pr | ML                   | NS, R, B, M  | Robayda 3013 |
| *P. plebeium* R. Br.             | Khudi Bishkatali     | Herb, er | FL                   | M, P, R, V   | Robayda 1671 |
| *P. pubescens* Blume             | Lal-Bishkatali       | Herb, er | FL                   | NS, S        | -    | Robayda 2949 |
| *Ramex maritimus* L.             | Bal Palong           | Herb, er | ML                   | All upazilas M | Robayda 1806 |
| **DILLENIACEAE** Salisb.         |                      |          |                      |              |      |           |
| *Dillenia indica* L.             | Chalta               | Tree, m  | SJ                   | All upazilas Fr | Robayda 1115 |
| **DIPTEROCARPACEAE** Blume       |                      |          |                      |              |      |           |
| *Dipterocarpus turbinatus* Gaertn.| Garjan               | Tree, l  | Wd                   | S            | T    | Robayda 134 |
| **CLUSIACEAE** Lindl.            |                      |          |                      |              |      |           |
| *Calophyllum inophyllum* L.       | Sultan Champa        | Tree, l  | RS (pl)              | NS           | O    | Robayda 2964 |
| *Garcinia cowa* Roxb.            | Kau                  | Tree, l  | SJ                   | S            | Fr   | Robayda 2657 |
| **ELAEOCARPACEAE** Juss.         |                      |          |                      |              |      |           |
| *Elaecarpus floribunda* Blume    | Jalpai               | Tree, m  | RS                   | All upazilas Fr | Robayda 2313 |
| *E. lancefolius* Roxb.           | -                    | Tree, m  | FL                   | B            | -    | Robayda 2546 |
| **TILIACEAE** Juss.              |                      |          |                      |              |      |           |
| *Corchorus aescuans* L.          | Banpat               | Herb, pr | FL                   | P            | M    | Robayda 759 |
| *C. capsularis* L.               | Deshi-pat            | Shrub    | RS                   | All upazilas Fb | Robayda 2059 |
| *Grewia nervosa* (Lour.) Panigrahi| Pichandi, Datoi     | Tree, s  | RS, SJ               | All upazilas Fw | Robayda 1969 |
| *Triamfetta rhomboidea* Jacq.    | Bon Okra             | Shrub    | RS                   | All upazilas M | Robayda 840 |
| **STERCULIACEAE** Vent.          |                      |          |                      |              |      |           |
| *Abroma augusta* (L.) L. f.      | Ulatkambal           | Shrub    | FL                   | M, B, S, M   | Robayda 2786 |
| *Melochia corchorifolia* L.      | Tiki Okra            | Herb, er | RS                   | All upazilas W  | Robayda 2006 |
| *Pentapetes phoeicea* L.         | Bandhuli             | Shrub    | RS                   | NS, S        | O    | Robayda 2784 |
| **MALVACEAE** Juss.              |                      |          |                      |              |      |           |
| *Abelmoschus esculents* (L.) Moench| Dheros              | Herb, er | ML (cu)              | All upazilas V | Robayda 1220 |
| *A. moschatus* Medik.             | Mushak-dana          | Shrub    | RS, FL               | B, S         | M    | Robayda 2431 |
| *Abutilon theophrasti* Medik.    | American Pat         | Shrub    | RS                   | NS, P, S, B  | Fb   | Robayda 2469 |
| *Bombax ceiba* L.                | Shimul               | Tree, l  | RS, FL               | B, R, S, P   | T, Fb | Robayda 1690 |
| *Ceiba pentandra* (L.) Gaertn.    | Swet Tula, Kapok     | Tree, l  | RS                   | NS           | T, Fb | Robayda 3036 |
| *Fioria vitifolia* (L.) Mattei    | Ban Carpas           | Herb, er | RS, FL               | P, M, B      | Fb   | Robayda 1423 |
| *Hibiscus rosa-sinensis* L.       | Jaba                 | Shrub    | RS                   | All upazilas O | Robayda 1370 |
| *H. saborifia* L.                | Mesta Pat            | Herb, er | ML                   | B, S, M, NS  | Fb   | Robayda 2238 |
| *H. surattensis* L.              | -                    | Herb, er | ML                   | P            | Fb, M | Robayda 3014 |
| *Malaviscus arbores* Cav.        | Morich jaba          | Shrub    | RS                   | All upazilas O | Robayda 92 |
| *Sida acuta* Burm. f.             | Berela               | Herb, er | RS                   | All upazilas - | Robayda 265 |
| *S. cordata* (Burm. f.) Borss. Waalk. | Junka             | Herb, er | FL                   | R, S         | -    | Robayda 878 |
| *S. cordifolia* L.               | Berela               | Herb, er | RS                   | R, S, M      | Fb   | Robayda 2368 |
| *S. rhombifolia* L.              | Lal berela           | Herb, er | RS                   | All upazilas M | Robayda 1991 |
| **TESPESIA lampas** (Cav.) Dalzell & A. Gibson | Ban Karpas | Shrub | SJ                | M, B        | Fb | Robayda 1075 |
| *Urena lobata* L.                | Ban okra             | Shrub    | RS                   | All upazilas Fb | Robayda 1988 |
| **LECYTHIDACEAE** A. Rich.       |                      |          |                      |              |      |           |
| *Barringtonia acutangula* (L.) Gaertn. | Hijal           | Tree, m  | ML                   | NS, B, S, M  | Robayda 2375 |
| Scientific name                  | Bangla name | Habit | Habitat | Distribution          | Use | RSE          |
|---------------------------------|-------------|-------|---------|-----------------------|-----|--------------|
| **FLACOURTIACEAE** Rich. ex DC. |             |       |         |                       |     |              |
| Flacourtia indica (Burm. f.) Merr. | Beuchi      | Shrub | SJ      | NS, S, M              | M   | Robayda 08   |
| F. jangomas (Lour.) Raesch.     | Paniala, Lukluki | Tree, s | SJ      | B, M, S Fr, M        | T   | Robayda 2245 |
| **VIOLACEAE** Batsch             |             |       |         |                       |     |              |
| Hybanthus enneaspermus (L.) F. Muell. | Numbora | Herb, er | FL      | R                     | M   | Robayda 1947 |
| **CARYOCARACEAE** Dumort.       |             |       |         |                       |     |              |
| Carica papaya L.                | Pepe        | Tree, s | ML      | All upazilas V, Fr, M |     | Robayda 1505 |
| **CUCURBITACEAE** Juss.         |             |       |         |                       |     |              |
| Benincasa hispida (Thunb.) Cogn. | Chalkumra   | Herb, cl | ML      | All upazilas V        |     | Robayda 2083 |
| Citrullus lanatus (Thunb.) Matsum. & Nakai | Tormaj | Herb, cl | RS      | NS, R Fr, M           |     | Robayda 3022 |
| Coccinia grandis (L.) Voigt      | Telakucha   | Herb, cl | RS, SJ  | All upazilas V, M     |     | Robayda 2271 |
| Cucumis collosus (Rottler) Cogn. | Titabangi   | Herb, cl | RS      | B, M                 |     | Robayda 2604 |
| C. melo L.                      | Bangi/Futi  | Herb, cl | RS      | NS, R, M Fr, M       |     | Robayda 2604 |
| C. sativus L.                   | Shasa       | Herb, cl | FL (cu) | All upazilas V        |     | Robayda 2084 |
| Cucurbita maxima Duchesne       | Misti Kumra | Herb, cl | RS (cu) | All upazilas V        |     | Robayda 1646 |
| Gymnopetalum cochinchenense (Lour.) Kurz | Ban Patol | Herb, cl | RS, SJ  | All upazilas -        |     | Robayda 2217 |
| Lagernaria siceraria (Molina) Standl. | Lau/Kadu | Herb, cl | ML (cu) | All upazilas V        |     | Robayda 1582 |
| Luffa acutangula (L.) Roxb.     | Zingha      | Herb, cl | FL (cu) | All upazilas V        |     | Robayda 2300 |
| L. cylindrica M. Roem.           | Dhandal     | Herb, cl | SJ      | All upazilas V        |     | Robayda 2557 |
| Momordica charantia L.           | Uchchhey/Korolla | Herb, cl | RS (cu) | All upazilas V        |     | Robayda 1597 |
| M. cochinchenensis (Lour.) Spreng. | Kakrol  | Herb, cl | SJ (cu) | All upazilas V        |     | Robayda 1662 |
| M. dioica Roxb. ex Willd.        | Dharkorolla | Herb, cl | SJ      | B V, M                |     | Robayda 1294 |
| Mukia maderaspatana (L.) M. Roem. | Agmukhi, Bilar | Herb, cl | RS      | B, M, S M            |     | Robayda 2475 |
| Solena amplexicauata (Lam.) Gandhi | Rakhal Shasha | Herb, cl | SJ      | B B                  |     | Robayda 2379 |
| Trichosanthes anguina L.         | Chichinga   | Herb, cl | SJ (cu) | All upazilas V        |     | Robayda 2005 |
| T. cordata Roxb.                 | Bhuikakra   | Herb, cl | SJ      | B M                   |     | Robayda 2155 |
| T. dioica Roxb.                  | Patal       | Herb, cl | SJ (cu) | S, M, B M            |     | Robayda 1747 |
| T. tricuspidata Lour.            | Makal       | Herb, cl | SJ      | B, S, R -            |     | Robayda 2554 |
| **CAPPARACEAE** Juss.            |             |       |         |                       |     |              |
| Capparis spinosa L.              | Kabiya, Kati | Shrub, cl | SJ      | M, S Fd, M           |     | Robayda 852  |
| Cleome rutidosperma DC.          | Beguni Hurhure | Herb, dc | RS, FL  | All upazilas -       |     | Robayda 1920 |
| C. viscosa L.                    | Halud Hurhure | Herb, er | RS, FL  | All upazilas -       |     | Robayda 2239 |
| Crateva magna (Lour.) DC.        | Tikhashakh, Bonnya | Tree, m | ML      | NS, R, M S           |     | Robayda 1974 |
| **BRASSICACEAE** Burnett         |             |       |         |                       |     |              |
| Brassica juncea (L.) Czern.      | Rai sarisha | Herb, er | RS      | S, B, R OI           |     | Robayda 581  |
| B. napus L.                     | Sarisha     | Herb, er | RS (cu) | All upazilas OI      |     | Robayda 1515 |
| B. rapa L.                      | Shalgam     | Herb, er | RS (cu) | All upazilas V       |     | Robayda 1545 |
| Cardamine flexuosa With.         | -           | Herb, dc | AF, RS  | P, S, R, NS          |     | Robayda 1506 |
| Raphanus sativus L.              | Mula        | Herb, er | ML (cu) | All upazilas V, M    |     | Robayda 1209 |
| Rorippa palustris (L.) Besser    | Panisarisha | Herb, dc | RS, FL  | P, R, S, M -         |     | Robayda 334  |
| **MORINGACEAE** Martinov         |             |       |         |                       |     |              |
| Moringa ovalifolia Dinter & Berger | Sajna     | Tree, m | RS, FL  | All upazilas V       |     | Robayda 1654 |
| **SAPOTACEAE** Juss.             |             |       |         |                       |     |              |
| Chrysophyllum caimito L.         | Star Apple  | Tree, m | RS (pl) | R O                  |     | Robayda 2384 |
| Madhuca longifolia (J. Koenig ex L.) J.F. Mahua | Tree, l | FL, SJ | B, S | M | Robayda 2733 |
| Scientific name | Bangla name | Habit | Habitat | Distribution | Use | RSE |
|-----------------|-------------|-------|---------|--------------|-----|-----|
| *Minusops elegi* L. | Bakul       | Tree, l | RS (pl) | P, NS, M | O, T | Robayda 787 |
| **EBENACEAE** Gürke |             |       |         |              |     |     |
| *Diospyros biancoii* A. DC. | Beelati Gab | Tree, m | SJ      | B, P, NS, M | Fr, T | Robayda 2737 |
| *D. malabarica* (Desr.) Kostel. | Deshi Gab  | Tree, l | SJ      | B, S, M, NS | Fr, T | Robayda 2138 |
| *D. montana* Roxb. | Tamal       | Tree, s | SJ      | P, B, R     | T    | Robayda 2251 |
| **PRIMULACEAE** Batsch ex Borkh. |             |       |         |              |     |     |
| *Ardisia humilis* Vahl | Chauldhoa   | Shrub | SJ      | B, S, P     | -    | Robayda 1731 |
| **CRASSULACEAE** J.St.-Hil. |             |       |         |              |     |     |
| *Kalanchoe blossfeldiana* Poelln. | Patharkuchi | Herb, er | RS | B, S, NS, P | O | Robayda 944 |
| **ROSACEAE** Juss. |             |       |         |              |     |     |
| *Rosa chinensis* Jacq. | Kanta Golap | Shrub | RS | All upazilas | O | Robayda 2752 |
| **FABACEAE** Lindl. |             |       |         |              |     |     |
| *Acacia auriculiformis* A. Cunn. ex Benth. | Akashmoni | Tree, l | WD | All upazilas | T | Robayda 940 |
| *A. longifolia* (Andrews) Willd. | Hybrid Acacia | Tree, s | WD | B, NS, P, R | T | Robayda 2956 |
| *A. mangium* Willd. | Mangium     | Tree, l | WD | All upazilas | T | Robayda 2957 |
| *A. nilotica* (L.) Willd. ex Delile | Babla | Tree, m | RS | M | T | Robayda 1090 |
| *Aeschynomene indica* L. | Bhatsonola | Shrub | RS, FL | NS, P, B, R | - | Robayda 2716 |
| *Albizia lebbeck* (L.) Benth. | Siris, Kalo Karoi | Tree, l | RS | All upazilas | T | Robayda 2097 |
| *A. lucidior* (Steud.) I.C. Nielsen ex H. Harra | Sil-Kioroi | Tree, l | RS | B, S, P | T | Robayda 2919 |
| *A. richardiana* King & Prain | Gagan Sirish | Tree, l | RS | All upazilas | T | Robayda 1471 |
| *Alysicarpus rugosus* (Willd.) DC. | Gagan Sirish | Tree, l | RS | All upazilas | T | Robayda 1471 |
| *Arachis hypogaea* L. | Cheena Badam | Herb, dc | AF | P, NS, R | Ol | Robayda 2039 |
| *Bauhinia aconitifolia* L. | Sada Kanchon | Tree, s | RS | All upazilas | O | Robayda 108 |
| *Butea monosperma* (Lam.) Taub. | Nata/Jhagragota | Shrub | RS, SJ | R | M | Robayda 3033 |
| *Caesalpinia bonduc* (L.) Roxb. | Palash | Tree, m | SJ | P, NS, S | O, M | Robayda 2430 |
| *C. pulcherrima* (L.) Sw. | Radhachura | Shrub | RS | NS, S, P | O, M | Robayda 2462 |
| *Cajanus cajan* (L.) Huth | Arah | Shrub | RS | All upazilas | Pu, M | Robayda 1475 |
| *Calliandra surinamensis* Benth. | Surinam powder puff | Tree, s | RS | NS, S, P | O | Robayda 564 |
| *Canavalia virosa* (Roxb.) Wight & Arn. | Kath Shim | Shrub | SJ | B, P, M, R | V | Robayda 2798 |
| *Cassia fistula* L. | Sonalu, Badarlathi | Tree, m | RS | All upazilas | T, M | Robayda 1997 |
| *Cicer arietinum* L. | Chhola | Herb, er | AF | R, B, NS, M, Pu | S | Robayda 3129 |
| *Clitoria ternatea* L. | Aparajita | Herb, cl | FL | All upazilas | O | Robayda 671 |
| *Crotalaria pallida* Aiton | Jhunjhuni | Herb, er | RS, FL | All upazilas - | - | Robayda 417 |
| *Dalbergia sissoo* Roxb. ex DC. | Sissoo Gachh | Tree, l | RS | All upazilas | T | Robayda 2899 |
| *D. stipulacea* Roxb. | Dhadari | Tree, s | RS | S | T | Robayda 3055 |
| *Delonix regia* (Bojer ex Hook.) Raf. | Krishnachura | Tree, l | RS | All Upazilas | O | Robayda 2687 |
| *Derris monticola* Prain | - | Shrub | SJ | NS | - | Robayda 2809 |
| *Desmodium gangeticum* (L.) DC. | Salpani | Shrub | RS, FL | NS, P, R, S | M | Robayda 1712 |
| *D. gyroides* (Roxb. ex Link) DC. | - | Shrub | RS | NS, B, M | - | Robayda 582 |
| *D. triflorum* (L.) DC. | Kulalia | Herb, pr | RS, FL | All upazilas - | - | Robayda 1943 |
| *Erythrina fusca* Lour. | Kanta Mander | Tree, m | RS, SJ | NS, B, S, M | Fw, M | Robayda 1884 |
| *E. variegata* L. | Madar | Tree, m | RS, SJ | B, M, S, NS | Fw | Robayda 2396 |
| *Lablab purpureus* (L.) Sweet | Sheem | Herb, cl | FL | All upazilas | V, Pu | Robayda 247 |
| *Lathyrus sativus* L. | Khesari | Herb, dc | ML | All upazilas | Pu, Fd | Robayda 1593 |
| *Leucaena leucocephala* (Lam.) de Wit | Ipil-Ipil | Tree, m | RS | All upazilas | O, Fd | Robayda 1262 |
| Scientific name | Bangla name | Habit | Habitat | Distribution | Use | RSE |
|-----------------|-------------|-------|---------|--------------|-----|-----|
| *Mimosa pudica* L. | Lajjabati | Herb, er | RS, FL | All upazilas | M | Robayda 1069 |
| *Mucuna pruriens* (L.) DC. | Al-kushi | Herb, cl | RS | P | M | Robayda 1758 |
| *Peltophorum pterocarpum* (DC.) Backer ex K. Heyne | Halud | Tree, l | RS | NS, S, P | O | Robayda 2715 |
| *Phaseolus vulgaris* L. | Farash Bean | Herb, er | ML (cu) | P, S, B, M | V | Robayda 330 |
| *Pueraria phaseoloides* (Roxb.) Benth. | - | Herb, cl | RS | P, NS, B | - | Robayda 1498 |
| *Rhus Javanica* (L.) DC. | - | Herb, cl | FL | P | - | Robayda 271 |
| *Samanea saman* (Jacq.) Merr. | Randi Korno | Tree, l | RS | All upazilas | O, T | Robayda 1066 |
| *Senna alata* (L.) Roxb. | Dadmardan | Shrub | RS, SJ | NS, P, S, M | M | Robayda 2771 |
| *S. occidentalis* (L.) Link | Gola Kalkasunda | Herb, er | RS | All upazilas | M | Robayda 385 |
| *S. sophera* (L.) Roxb. | Gola Kalkasunda | Shrub | RS, NS | R, M | M | Robayda 2945 |
| *S. tora* (L.) Roxb. | Chhoto | Shrub | RS, FL | All upazilas | M | Robayda 568 |
| *Sesbania bispinosa* (Jacq.) W.ight | Dhanica | Shrub | ML | All upazilas | Fd, Fw | Robayda 2816 |
| *S. sesban* (L.) Merr. | Jontica | Shrub | ML | All upazilas | Fd | Robayda 1376 |
| *Spatholobus acuminatus* Benth. | Palashi lata | Shrub, cl | SJ | S | - | Robayda 113 |
| *Tamarindus indica* L. | Tetal | Tree, l | RS | All upazilas | Fr, M | Robayda 1431 |
| *Uvaria lagopus* DC. | - | Herb, er | FL | S, B, M | - | Robayda 1909 |
| *Vicia hirsuta* (L.) Gray | Masurechana | Herb, cl | RS | P | Fd | Robayda 1446 |
| *Vigna marina* (Burm.) Merr. | Nonta Shim | Herb, cl | ML | P | - | Robayda 2992 |
| *V. mungo* (L.) Hepper | Mash Kalai | Herb, er | ML (cu) | B, M, S, R | - | Robayda 1752 |
| *V. unguiculata* (L.) Walp. | Borboti | Herb, cl | FL | All upazilas | V, Pu | Robayda 2522 |
| **HALORAGACEAE** R. Br. | | | | | | |
| *Myriophyllum tetrandrum* Roxb. | - | Herb, aq | WL | NS, B, P | - | Robayda 178 |
| **LYTHRACEAE** J.S.-Hil. | | | | | | |
| *Cuphea hyssopifolia* Kunth | - | Herb, er | FL (pl) | B, M, S, NS | O | Robayda 2524 |
| *Lagerstroemia speciosa* (L.) Pers. | Jarul | Tree, m | RS | NS, P | O | Robayda 2447 |
| *L. indica* L. | Cherri | Tree, s | RS | NS, S, P | O | Robayda 463 |
| *Lawsonia inermis* L. | Mehedi | Shrub | FL | All upazilas | Dy | Robayda 2512 |
| *Rotala indica* (Wild.) Koehne | - | Herb, aq | WL | NS, S | - | Robayda 1158 |
| *R. rotundifolia* (Buch.-Ham. ex Roxb.) Koehne | - | Herb, er | WL | All upazilas | - | Robayda 1891 |
| **MYRTACEAE** Juss. | | | | | | |
| *Callistemon citrinus* (Currit) Skeels | Bottle Brush | Tree, s | RS (pl) | P, NS | O | Robayda 686 |
| *Eucalyptus camaldulensis* Dehn. | Eucalyptus | Tree, l | RS, Wd (pl) | P, S, NS | O, T | Robayda 2906 |
| *E. citriodora* Hook. | Eucalyptus | Tree, l | RS, Wd (pl) | All upazilas | O, T | Robayda 1097 |
| *Psidium guajava* L. | Pera | Tree, m | ML | All upazilas | Fr | Robayda 1526 |
| *Syzygium cumini* (L.) Skeels | Kalo Jam | Tree, l | FL, RS | All upazilas | Fr | Robayda 111 |
| *S. fruticosum* Roxb. ex DC. | Banjam | Tree, s | SJ | S, NS, M, B | Fw, Fd | Robayda 362 |
| *S. jambos* (L.) Alston | Golab-Jam | Tree, s | SJ, FL | All upazilas | Frw | Robayda 1368 |
| *S. samaranagense* (Blume) Merr. & L.M. Perry | Jamrul | Tree, s | All upazilas | Fr | Robayda 1487 |
| **PUNICACEAE** Bercht. & J. Presl | | | | | | |
| *Panica granatum* L. | Dalim | Tree, s | FL | All upazilas | Fr | Robayda 2515 |
| **ONAGRACEAE** Juss. | | | | | | |
| *Ludwigia adscendens* (L.) H. Harms | Keshordam | Herb, aq | WL | All upazilas | M | Robayda 1234 |
| *L. hyssopifolia* (G. Don) Exell | Jhumarich | Herb, er | WL, AF | All upazilas | - | Robayda 139 |
| Scientific name | Bangla name | Habit | Habitat | Distribution | Use | RSE  |
|-----------------|-------------|-------|---------|--------------|-----|------|
| MELASTOMATACEAE Juss. | Melastoma malabathricum L. | Ban tejpata | Shrub | RS, SJ | NS, S, B | M | Robayda 123 |
| COMBRETACEAE R. Br. | Combretum indicum (L.) DeFilipps | Madhurilata | Shrub, cl | SJ | M, B, NS, P | O | Robayda 2448 |
| | Terminalia arjuna ( Roxb. ex DC.) Wight & Arn. | Arjun | Tree, l | RS | All upazilas | M, T | Robayda 2738 |
| | T. catappa L. | Kathbadam | Tree, m | RS | All upazilas | M, T | Robayda 1109 |
| | T. chebula Retz. | Haritoki | Tree, m | SJ | B, M | M | Robayda 2832 |
| CORNACEAE Bercht. ex J. Presl | Alangium salvifolium (L. f.) Wangerin | Akarkanta, Aikha | Tree, s | RS | B, NS, P, M | M | Robayda 660 |
| RHIZOPHORACEAE Pers. | Carallia brachiata (Lour.) Merr. Tree | Roscow | Tree, m | RS, SJ | B, NS, M, S | T, M | Robayda 2163 |
| OLACACEAE Juss. ex R. Br. | Olax acuminata Wall. ex Benth. | Capsule gach | Shrub | SJ | S | M | Robayda 56 |
| LORANTHACEAE Juss. | Dendrophthoe falcata Eitingsh. | Bajrangi | Shrub | T. T., SP | P, S, M, R | - | Robayda 2693 |
| | D. pentandra (L.) Miq. | - | Shrub | T. T., SP | P | - | Robayda 2969 |
| | Viscum monoicum Roxb. ex DC. | Bhanda | Shrub, ps | T. T., SP | NS, P | - | Robayda 2712 |
| EUPHORBIACEAE Juss. | Acalypha indica L. | Muktajhari | Herb, er | RS, FL | B, P, NS, M | M | Robayda 1935 |
| | Chrozophora rottleri (Geiseler) A. Juss. ex Spreng. | Khudi Okra | Herb, er | RS | NS, S, R | - | Robayda 550 |
| | Cnemosme javanica Blume | Pahari Bichhuti | Shrub | SJ | P, NS | - | Robayda 51 |
| | Codiaeum variegatum (L.) Rumph. ex A. Juss. | Patabahar | Shrub | FL (pl) | All upazilas | O | Robayda 1497 |
| | Croton bonplandianus Baill. | Mircha | Herb, er | RS, FL | All upazilas | M | Robayda 1399 |
| | C. caudatus Geiseler | Sabarjala | Shrub | SJ | S, B, M, R | M | Robayda 68 |
| | Euphorbia hirta L. | Duddha | Herb, er | RS | All upazilas | M | Robayda 2073 |
| | E. nerifolia L. | Mansasij | Shrub | SJ | B, S, M, P | M | Robayda 1442 |
| | E. thymifolia L. | Duddhiya | Herb, pr | RS | All upazilas | - | Robayda 2009 |
| | Jatropha curcas L. | Baghverenda | Shrub | RS, FL | B | M | Robayda 2609 |
| | J. gossypifolia L. | Lalberendra | Shrub | RS, PS, B | M | Robayda 848 |
| | Macaranga peltata (Roxb.) Müll. Arg. | Ratabura | Tree, s | RS, SJ | All upazilas | - | Robayda 1700 |
| | Mallotus philippensis (Lam.) Müll. Arg. | Kamalaguli | Shrub | RS, SJ | B, S, M | M | Robayda 2198 |
| | M. repandus (Rottler) Müll. Arg. | Gunti | Tree, s | SJ | B, S, M | M | Robayda 2382 |
| | Pedilanthus tithymaloides (L.) Poit. | Berachita | Shrub | FL | B, NS, R, P | O | Robayda 2843 |
| | Ricinus communis L. | Verenda | Shrub | RS | All upazilas | M | Robayda 1996 |
| | Saregada multiflora (A. Juss.) Baill. | Ban-narenga | Tree, s | RS, SJ | B, NS, M | T | Robayda 1686 |
| | Trewia nudiflora L. | Meragota | Tree, m | ML | All upazilas | M | Robayda 1990 |
| PHYLLANTHACEAE Martinov | Aporosa dioica (Roxb.) Müll. Arg. | Pat khorolla | Tree, s | SJ | S, M, P, NS | - | Robayda 115 |
| | Baccaurea ramiflora Loureiro | Latkan | Tree, m | FL | B, S | Fr | Robayda 2145 |
| | Brenynia vitis-idea (Burm. f.) C.E.C. Fisch. | Lal Sitka | Shrub | SJ | All upazilas | - | Robayda 2319 |
| | Bridelia tomentosa Blume | Khoi | Shrub | SJ | S, B | - | Robayda 137 |
| | Flegea virosa (Roxb. ex Willd.) Royle | Shikori | Shrub | RS, SJ | All upazilas | M | Robayda 2356 |
| | Glochidion lanceolarium (Roxb.) Voigt | Anguti | Tree, s | RS, SJ | All upazilas | - | Robayda 2538 |
| | Phyllanthus acidus (L.) Skeels | Orboroi | Shrub | RS, NS, B, M | Fr | Robayda 3107 |
| | P. emblica L. | Amloki | Tree, m | RS | All upazilas | Fr | Robayda 604 |
| Scientific name                  | Bangla name | Habit  | Habitat | Distribution | Use   | RSE     |
|----------------------------------|-------------|--------|---------|--------------|-------|---------|
| *P. niruri* L.                   | Bhui amla   | Herb, er | RS      | All upazilas | M     | Robayda 154 |
| *P. reticulatus* Poir.           | Chhitiki    | Shrub   | FL, RS  | All upazilas | M     | Robayda 2004 |
| *P. urinaria* L.                 | Hajarmoni   | Herb, er | FL, RS  | All upazilas | M     | Robayda 2391 |
| **RHAMNACEAE** Juss.             |             |         |         |              |       |         |
| *Gouania leptostachya* DC.       | -           | Shrub, cl| SJ      | B            | -     | Robayda 2292 |
| *Ziziphus mauritiana* Lam.       | Boroii      | Tree, m | RS, FL  | All upazilas | Fr    | Robayda 1528 |
| *Z. oenopolia* (L.) Mill.        | Bon boroii  | Shrub   | SJ, B, S, M | Fd   |       | Robayda 118  |
| **VITACEAE** Juss.               |             |         |         |              |       |         |
| *Amelocissus barbata* (Wall.) Planch. | Jarila Lahari | Shrub, cl | SJ, B, S, M, NS | -   | Robayda 2330 |
| *A. latifolia* (Roxb.) Planch.   | Gowalia lata | Herb, cl | SJ, B, S, M | -     | Robayda 2211 |
| *Cissus adnata* Roxb.            | Alianga-lata | Shrub, cl | SJ, B, NS | -     | Robayda 1326 |
| *C. quadrangularis* L.           | Harjora Lata | Herb, cl | RS, NS, M | M     | Robayda 2923 |
| *Leera alata* Edgew.             | -           | Shrub   | SJ, B, S | -     | Robayda 2260 |
| *L. asiatica* (L.) Ridsdale      | Banchalita  | Shrub   | SJ, S, M | -     | Robayda 1241 |
| *L. indica* (Burm. f.) Merr.     | Kuruk jilwa | Shrub   | SJ, S | M     | Robayda 2261 |
| *Tetragastrigma angustifolium* (Roxb.) Planch. | Nekung riubi | Herb, cl | RS | -     | Robayda 3133 |
| *T. leucostaphyum* (Dennst.) Alston | Horina-lata | Shrub, cl | RS | All upazilas | -     | Robayda 2660 |
| *Vitis vinifera* L.              | Angur       | Shrub, cl | ML, NS, B, M | Fr   |       | Robayda 2520 |
| **MALPIGHIAEAE** Juss.           |             |         |         |              |       |         |
| *Hiptage benghalensis* (L.) Kurz | Madhabilata | Shrub, cl | SJ, S | M     | Robayda 110  |
| **SAPINDACEAE** Juss.            |             |         |         |              |       |         |
| *Allophylus cobbe* (L.) Forsyth f. | Rakhalchita  | Shrub   | SJ, B, S | Fw    | Robayda 2277 |
| *Dimocarpus longan* Lour.        | Kathlichu, Ashfal | Tree, m | SJ, B, S, M | -     | Robayda 2545 |
| *Lepisanthes rubiginosa* (Roxb.) Leenh. | Bararahina  | Tree, s | SJ, FL, B, P, NS, S, M | Fw   | Robayda 2087 |
| *L. senegalensis* (Juss. ex Poir.) Leenh. | Amjam  | Shrub   | SJ, S, M, P | Fw   | Robayda 2279 |
| *Litchi chinensis* Sonn.         | Lichu       | Tree, l | ML | All upazilas | Fr    | Robayda 1425 |
| **BURSERACEAE** Kunth            |             |         |         |              |       |         |
| *Protium serratum* (Wall. ex Colebr.) Engl. | Chitrica  | Tree, m | SJ, S | T     | Robayda 3053 |
| **ANACARDIACEAE** R. Br.         |             |         |         |              |       |         |
| *Anona* coromandelica* (Houtt.) Merr. | Jiga, Kaflia | Tree, m | RS, ML | All upazilas | T, Fd | Robayda 2135 |
| *Mangifera indica* L.            | Aam         | Tree, | RS, FL | All upazilas | Fr, | Robayda 1444 |
| *Spondias pinnata* (L. f.) Kurz  | Amra        | Tree, l | RS, S | M, M | Robayda 2907 |
| *S. purpurea* L.                 | Beelati Amra | Tree, m | FL (pl) | All upazilas | Fr, M | Robayda 752 |
| **MELIACEAE** Juss.              |             |         |         |              |       |         |
| *Aphananxix polystachya* (Wall.) R. Parker | Pitraj, Roina | Tree, m | RS, SJ | All upazilas | T, M | Robayda 2242 |
| *Azadirachta indica* A. Juss.    | Nim         | Tree, | RS, FL | All upazilas | T, M | Robayda 1450 |
| *Melia azedarach* L.             | Goranin     | Tree, m | RS | All upazilas | T     | Robayda 1957 |
| *Swietenia macrophylla* King     | Bara Mehadon | Tree, l | Wd, RS | All upazilas | T     | Robayda 2283 |
| *S. mahagoni* (L.) Jacq.         | Mehogoni    | Tree, l | Wd, RS | All upazilas | T     | Robayda 381 |
| *Toona ciliata* M. Roem.         | Toon        | Tree, m | SJ, B, M | T     | Robayda 22 |
| **RUTACEAE** Juss.               |             |         |         |              |       |         |
| *Aegle marmelos* (L.) Corèa      | Bel         | Tree, m | FL | All upazilas | Fr, M | Robayda 894 |
| *Citrus limon* (L.) Osbeck       | Gora lebu   | Shrub   | RS | All upazilas | Fr    | Robayda 342 |
| *C. maxima* (Burm.) Merr.        | Jambura     | Tree, l | FL | All upazilas | Fr    | Robayda 1925 |
| *C. medica* L.                   | Lebu        | Shrub   | FL | All upazilas | Fr    | Robayda 1560 |
## ANGIOSPERMS IN NARSINGDI DISTRICT OF BANGLADESH

| Scientific name                        | Bangla name | Habit   | Habitat | Distribution | Use   | RSE  |
|----------------------------------------|-------------|---------|---------|--------------|-------|------|
| *Glycosmis pentaphylla* (Retz.) DC.    | Motkila     | Shrub   | RS, FL  | All upazilas | M     | Robayda 1982 |
| *Limonia acidissima* L.                | Kotibhel    | Tree, l | RS, FL  | NS, S, B     | Fr    | Robayda 2722 |
| *Micromelum minutum* Wight & Arn.     | Koriophila  | Tree, s | SJ      | B, S, M      | -     | Robayda 2259 |
| *Murraya koenigii* (L.) Spreng.       | Currypata   | Tree, s | RS, SJ  | B, S, M      | M     | Robayda 1298 |
| *M. paniculata* (L.) Jack              | Kamini      | Tree, s | RS      | All upazilas | O, M  | Robayda 780  |
| *Zanthoxylum rhetsa* DC.               | Bajna       | Tree, m | SJ      | All upazilas | Ol, T | Robayda 2400 |
| **OXALIDACEAE** R. Br.                 |             |         |         |              |       |      |
| *Averrhoa bilimbi* L.                  | Bilimbi     | Tree, s | FL      | NS, B, M     | Fr    | Robayda 2089 |
| *A. carambola* L.                      | Kamranga    | Tree, m | RS      | All upazilas | Fr, M | Robayda 632  |
| *Oxalis corniculata* L.                | Anurul      | Herb, pr| FL, AF  | All upazilas | M, V  | Robayda 1823 |
| **BALSAMINACEAE** A. Rich.             |             |         |         |              |       |      |
| *Impatiens balsamina* L.               | Dopoti      | Herb, er| RS      | P, B, M      | O     | Robayda 2756 |
| **APIACEAE** Lindl.                    |             |         |         |              |       |      |
| *Centella asiatica* (L.) Urb.          | Thankuni    | Herb, pr| FL, RS  | All upazilas | M, V  | Robayda 1279 |
| *Coriandrum sativum* L.                | Dhonia      | Herb, er| ML (cu)| B, S, NS, R  | Sp, M | Robayda 1207 |
| *Daucus caroiti* L.                    | Gazor       | Herb, er| ML (cu)| P, NS, S, V  |      | Robayda 322  |
| *Eryngium foetidum* L.                 | Beelati Dhonia | Herb, er| FL      | All upazilas | Sp    | Robayda 1522 |
| *Hydrocotyle sibirsprioides* Lam.      | -           | Herb, cr| FL      | M            | -     | Robayda 1699 |
| **APOCYNACEAE** Juss.                  |             |         |         |              |       |      |
| *Allamanda catharica* L.               | Alakananda  | Shrub   | RS (pl) | NS, S        | O     | Robayda 2764 |
| *Allstonia scholaris* (L.) R. Br.      | Chhatim     | Tree, m | SJ, FL  | All upazilas | M     | Robayda 1972 |
| *Catharanthus roseus* (L.) G. Don       | Nayananta   | Herb, er| RS      | All upazilas | O, M  | Robayda 605  |
| *Carissa carandas* L.                   | Karimcha    | Shrub   | FL (pl)| B, S, NS, M  | Fr, M | Robayda 1418 |
| *Holarrhena antidysenterica* (L.) Wall. | Kurchi      | Shrub   | SJ      | S            | M     | Robayda 387  |
| ex A. DC.                              |             |         |         |              |       |      |
| *Ichnocarpus frutescens* (L.) W.T. Aiton| Shyamalata  | Shrub, cl| SJ      | NS, S, B, M  | M     | Robayda 2357 |
| *Nerium oleander* L.                   | Raktakarabi | Shrub   | RS      | NS, S        | O     | Robayda 2788 |
| *Plumeria alba* L.                     | Gulachin    | Tree, s | RS      | NS, S, B     | O     | Robayda 3128 |
| *Rauwolfia serpentina* (L.) Benth. ex  | Sarpagandha | Herb, er| SJ      | B            | M     | Robayda 2921 |
| Kurz                                   |             |         |         |              |       |      |
| *Tabernaemontana divaricata* (L.) R. Br.| Tagar       | Shrub   | RS, SJ  | B, S, M, NS  | O, M  | Robayda 01   |
| ex Roem. & Schult.                     |             |         |         |              |       |      |
| **ASCLEPIADIACEAE** Borkh.             |             |         |         |              |       |      |
| *Calotropis gigantea* (L.) W.T. Aiton   | Akand       | Shrub   | RS, SJ  | NS           | M     | Robayda 3061 |
| *C. procera* (Aiton) W.T. Aiton        | Akand       | Shrub   | RS, SJ  | NS, S, B     | M     | Robayda 1547 |
| *Hemidesmus indicus* (L.) R. Br. ex    | Anantamul   | Shrub ,tw| FL      | P            | NS    | Robayda 1510 |
| Schult.                                |             |         |         |              |       |      |
| *Marsdenia tenacissima* (Roxb.) Moon   | Jitti, Chitti | Shrub ,tw| ML, SJ  | B, S, M      | M     | Robayda 2651 |
| *Telosma cordata* (Burm. f.) Merr.     | Kanja Lata  | Shrub ,tw| SJ      | NS           | Fb    | Robayda 2813 |
| *Dregea volubilis* (L.f.) Benth. ex Hook.f.| Madhumaloti | Shrub, tw| RS, SJ  | NS, R        |      | Robayda 3108 |
| **SOLANACEAE** Juss.                   |             |         |         |              |       |      |
| *Capsicum frutescens* L.               | Lanka Morich | Herb, er| ML (cu)| All upazilas | V, Sp | Robayda 232  |
| *Cestrum nocturnum* L.                 | Hasnahena   | Shrub   | RS      | All upazilas | O     | Robayda 2518 |
| *Datura metel* L.                      | Dhutura     | Herb, er| FL, RS  | All upazilas | M     | Robayda 850  |
| *Lycopersicon esculentum* Mill.        | Tomato      | Herb, er| ML (cu)| All upazilas | V     | Robayda 321  |
| *Nicotiana plumbaginifolia* Viv.       | Bon Tamak   | Herb, er| FL      | P, NS, B     | -     | Robayda 1594 |
| *Physalis angulata* L.                 | Fotka       | Herb, er| FL      | P, S, NS     | M     | Robayda 2719 |
| *P. minima* L.                         | Fotka       | Herb, er| FL      | All upazilas | M     | Robayda 1635 |
| *Solanum americanum* Mill.             | Tit Begun   | Herb, er| FL      | P, S         | -     | Robayda 2962 |
| Scientific name | Bangla name | Habit | Habitat | Distribution | Use | RSE |
|-----------------|-------------|-------|---------|--------------|-----|-----|
| *S. erianthum* D. Don | - | Shrub | SJ | B, S, M | - | Robayda 2359 |
| *S. melongena* L. | Begun | Herb, er | FL (cu) | All upazilas | V | Robayda 1600 |
| *S. nigrum* L. | Tit Begun | Herb, er | FL | B, S, M | - | Robayda 1340 |
| *S. sisybrifolium* Lam. | Kanta begun | Herb, er | RS | All upazilas | - | Robayda 1794 |
| *S. torvum* Sw. | Gota Begun | Shrub, RS, FL | B, S, M | All upazilas | V | Robayda 769 |
| *S. tuberosum* L. | Aalo | Herb, er | ML (cu) | All upazilas | V | Robayda 1507 |
| **CONVOLVULACEAE** Juss. | | | | | | |
| *Argyrea capitorum* (Poir.) Ooststr. | - | Shrub | SJ, RS | P | - | Robayda 2976 |
| *A. nervosa* (Burm. f.) Bojer | Bara Duddhi | Shrub, cl | SJ, RS | P, B, S, M | - | Robayda 2624 |
| *A. roxburghii* (Wall.) Arn. ex Choisy | - | Shrub | SJ, NS | - | - | Robayda 2885 |
| *Cascuta reflexa* Roxb. | Shnaralata | Herb, ps | RS | All upazilas | - | Robayda 485 |
| *Evolvulus numbularius* (L.) L. | Blui Okra | Herb | RS, FL | All upazilas | - | Robayda 243 |
| *Hydnocarpus acuminata* (L.) Lam. | Kalmi Shak | Herb | WL | All upazilas | V | Robayda 1204 |
| *I. batatas* (L.) Lam. | Misti Aloo | Herb | ML (cu) | All upazilas | V | Robayda 1486 |
| *L. fistulosa* Mart. ex Choisy | Dhol kalmi | Shrub | ML, RS | All upazilas | - | Robayda 1989 |
| *Jacquemontia paniculata* (Burm. f.) Hallier f. | - | Herb, tw | SJ | P, NS | - | Robayda 809 |
| *Merremia hederacea* (Burm. f.) Hallier f. | Kaladana | Herb, cl | RS, SJ | P | - | Robayda 838 |
| *M. umbellata* (L.) Hallier f. | Sada kalmi | Herb, cl | RS, SJ | All upazilas | - | Robayda 2392 |
| **MENYANTHACEAE** Dumort. | | | | | | |
| *Sympodium hydrophyllum* (Lour.) Kuntze | - | Herb, aq | WL | P, S, M | - | Robayda 2731 |
| *N. indica* (L.) Kuntze | Chandmala | Herb, aq | WL | B, S, R | - | Robayda 3059 |
| **HYDROPHYLLACEAE** R. Br. | | | | | | |
| *Hydrocle zeylanica* (L.) Vahl | - | Herb, pr | WL | S, M | - | Robayda 164 |
| **BORAGINACEAE** Juss. | | | | | | |
| *Cordia dichotoma* G. Forst. | Bohal, Boula | Tree, l | SJ | S, NS | T, M | Robayda 527 |
| *C. serrata* Juss. ex Lam. | - | Tree, s | SJ | B, M, S | Fw | Robayda 1318 |
| *Ehretia acuminata* R.Br. | Kala-aja, Kala-juja | Tree, s | RS, SJ | All upazilas | M | Robayda 2435 |
| *Heliotropium indicum* L. | Hatisur | Herb, er | FL | All upazilas | M | Robayda 1865 |
| **VERBENACEAE** J. St.-Hil. | | | | | | |
| *Duranta erecta* L. | Kanta mehendi | Shrub | RS | All upazilas | O | Robayda 925 |
| *Lantana camara* L. | Lantana, Kutus Kanta | Shrub | RS, FL | All upazilas | O | Robayda 1585 |
| *Lippia alba* (Mill.) N.E. Br. ex Britton & P. Wilson | Pichas ban | Shrub | RS, ML | All upazilas | - | Robayda 2071 |
| *Phyllo nodiflora* (L.) Greene | Bhuickra | Herb, dc | ML | P, B, NS, R | M | Robayda 1856 |
| **LAMIACEAE** Martinov | | | | | | |
| *Anisomeles indica* (L.) Kuntze | Gobura | Herb, er | RS, FL | B, S, M | M | Robayda 2470 |
| *Licilacarpus macrophylla* Vahl | Bormala | Shrub | SJ | B | M | Robayda 2219 |
| *Clerodendrum chinense* (Osbeck) Mabb. | Hazari beli | Shrub | SJ | B, S, M | O | Robayda 2365 |
| *C. indicum* (L.) Kuntze | Barnunhatti | Shrub | SJ, ML | B, S, M | M, O | Robayda 2218 |
| *C. infortinatum* L. | Bhat, Ghetu | Shrub | RS, ML | All upazilas | M | Robayda 1973 |
| *Coleus scutellarioides* (L.) Benth. | Patabahar | Herb, er | ML (pl) | All upazilas | O | Robayda 744 |
| *Gmelina arborea* Roxb. | Gamari | Tree, l | SJ, FL | B, S, M | T | Robayda 2740 |
| *Hyptis suaveolens* (L.) Poit. | Tokma | Herb, er | RS, FL | All upazilas | M | Robayda 1855 |
| *Leonurus sibiricus* L. | Roktedron | Herb, er | RS | All upazilas | M | Robayda 2364 |
| *Leucas aspera* (Willd.) Link | Shetadron | Herb, er | AF, RS, FL | All upazilas | M | Robayda 1810 |
| Scientific name                        | Bangla name | Habit | Habitat | Distribution | Use | RSE     |
|---------------------------------------|-------------|-------|---------|--------------|-----|---------|
| *L. indica* (L.) R. Br. ex Sm.         | Shetadron   | Herb, er | AF, RS, FL | B, R | M | Robayda 3065 |
| *Mentha arvensis* L.                   | Pudina      | Herb, pr | FL (cu) | P, NS | V, M | Robayda 344 |
| *Ocimum americanum* L.                 | Ban Tulsi    | Herb, er | FL | R, M, B | M | Robayda 1006 |
| *O. tenuiflorum* L.                    | Tulsi        | Herb, er | FL | All upazilas | M | Robayda 2575 |
| *Pogostemon auricularias* (L.) Hassk.  | -           | Herb, er | RS | S | - | Robayda 2537 |
| *P. quadrifolius* (Benth.) F. Muell.   | -           | Herb, er | ML | M | - | Robayda 916 |
| *P. stellatus* (Lour.) Kuntze          | -           | Herb, er | WL | R | - | Robayda 3131 |
| *Premna esculenta* Roxb.               | Lalana      | Shrub | SJ | B | - | Robayda 2231 |
| *Tectona grandis* L. f.                | Segun       | Tree, l | RS, Wd | B, S, P, R | T | Robayda 642 |
| *Volkameria inermis* L.                | Banjui      | Shrub | RS, ML | M | O, M | Robayda 2711 |
| **OLEACEAE** Hoffeanns. & Link        |             |       |         |              |    |         |
| *Jasminum multiflorum* (Burm. f.) Andrews | Chameli   | Shrub | RS (pl) | NS, S | O | Robayda 2762 |
| *J. sambac* (L.) Aiton                 | Beli        | Shrub | SJ | B, S, M | O | Robayda 1084 |
| *Nectanthes arbor-tristis* L.          | Sheuli      | Tree, s | FL, SJ | All upazilas | O | Robayda 735 |
| **PLANTAGINACEAE** Juss.               |             |       |         |              |    |         |
| *Limonophila aromatica* (Lam.) Merr.   | Pani karpur | Herb, er | AF | S, R, M, B | - | Robayda 1165 |
| *L. repens* (Benth.) Benth.            | -           | Herb, er | AF | S | - | Robayda 131 |
| *L. sessiliflora* Blume                | -           | Herb, er | AF | S, B, M | - | Robayda 130 |
| *Mecardonia procumbens* (Mill.) Small  | -           | Herb, er | FL, AF | P, B, M | - | Robayda 832 |
| *Scoparia dulcis* L.                   | Bandhane    | Herb, er | FL, RS | All upazilas | M | Robayda 2345 |
| **LINDERNAEACEAE** Borsch, Kai Müll. & Eb. Fisch. | | | | | | |
| *Lindernia anagallis* (Burm.f.) Pennell | -           | Herb, pr | AF, ML | B, S, M, P | - | Robayda 1630 |
| *L. antiophila* (L.) Alston            | -           | Herb, pr | RS, AF | All upazilas | - | Robayda 168 |
| *L. crustatae* (L.) F. Muell.          | -           | Herb, pr | RS, FL | All upazilas | M | Robayda 2485 |
| *L. rotundifolia* (L.) Alston          | -           | Herb, pr | AF, ML | All upazilas | - | Robayda 2465 |
| *L. ruellioides* (Colsm.) Pennell      | -           | Herb, pr | ML | M | - | Robayda 2533 |
| *L. viscosa* (Hornem.) Merr.           | -           | Herb, er | RS | P | - | Robayda 3011 |
| **MAZACEAE** Reveal                    |             |       |         |              |    |         |
| *Mazus pumilus* (Burm. f.) Steenis     | -           | Herb, er | RS | P, R, S | - | Robayda 1427 |
| **ACANTHACEAE** Juss.                  |             |       |         |              |    |         |
| *Dipterocanthus prostratus* (Poir.) Nees | -           | Herb, er | RS | B, NS, P, M | M | Robayda 1683 |
| *Eecholium ligustrinum* (Vahl) Vollesen | Udujati    | Shrub | SJ | B | M | Robayda 2246 |
| *Hemigraphis hirta* T. Anderson        | Buripan     | Herb, er | RS, FL | P, B, M | - | Robayda 290 |
| *Hygrophila phlomoides* Nees           | -           | Herb, er | AF | P | M | Robayda 1578 |
| *H. polysperma* (Roxb.) T. Anderson    | -           | Herb, er | WL, AF | S, B, M | - | Robayda 1166 |
| *Justicia adhatoda* L.                 | Basak       | Shrub | SJ, RS | B, S, M, NS | M | Robayda 643 |
| *J. diffusa* Wild.                     | -           | Herb, pr | RS | R | - | Robayda 3097 |
| *J. gendarussa* Burm. f.                | Jagatmadan  | Shrub | FL | All upazilas | M | Robayda 87 |
| *Lepidagathis inaequalis* C.B. Clarke ex Elmer | -           | Herb, pr | RS | NS | - | Robayda 2857 |
| *Nelsonia canescens* (Lam.) Spreng.    | Paramul     | Herb, pr | RS | All upazilas | - | Robayda 42 |
| *Phalopogon imbricata* (Forssk.) Sweet | -           | Herb, pr | RS | All upazilas | - | Robayda 1369 |
| *Phlogacanthus curviflorus* (Wall.) Nees | -           | Shrub | SJ | B, M | O | Robayda 2129 |
| *Ruellia tuberosa* L.                  | Chotpoty    | Herb, er | RS | B, M | M | Robayda 2791 |
| *Rungia pectinata* (L.) Nees           | Pindi       | Herb, er | RS | All upazilas | M | Robayda 88 |
| *Staurogyne argentea* Wall.            | -           | Herb, er | FL | NS | - | Robayda 2932 |
| Scientific name                  | Bangla name         | Habit  | Habitat | Distribution | Use  | RSE          |
|---------------------------------|---------------------|--------|---------|--------------|------|--------------|
| *Thanbergia erecta* (Benth.) T. Anderson | Nil Ghanta          | Shrub  | RS      | B            | O    | Robayda 2414 |
| *T. grandiflora* Roxb.          | Nil lata            | Herb, cl| SJ      | S            | -    | Robayda 91   |
| **PEDALIACEAE** R. Br.          |                     |        |         |              |      |              |
| *Sesamum indicum* L.            | Til                 | Herb, er| RS      | NS, R, B, S  |      | Robayda 2086 |
| **BIGNONIACEAE** Juss.          |                     |        |         |              |      |              |
| *Oroxylum indicum* (L.) Kurz    | Kanaidingi, Sona    | Tree, m| SJ      | M, NS, S     |      | Robayda 2224 |
| **LENTIBULARIACEAE** Rich.      |                     |        |         |              |      |              |
| *Utricularia foliosa* L.        | Jhangi              | Herb, aq| WL     | All upazilas| -    | Robayda 2732 |
| **CAMPALUNACEAE** Juss.         |                     |        |         |              |      |              |
| *Lobelia radicans* Thunb.       | -                   | Herb, er| FL      | P, B, R, M   |      | Robayda 2258 |
| *L. terminalis* C.B. Clarke     | -                   | Herb, pr| AF      | M            |      | Robayda 1173 |
| **RUBIACEAE** Juss.             |                     |        |         |              |      |              |
| *Borreria ozymoides* (Burm. f.) DC. | -                   | Herb, er| ML      | P, B         | -    | Robayda 3009 |
| *Catunaregam spinosa* (Thunb.) Tirveng. | Monkata             | Shrub  | SJ      | S, M         | -    | Robayda 2902 |
| *Chassalia curviflora* (Wall.) Thwaites | Hel Gass            | Shrub  | SJ      | B            | -    | Robayda 2212 |
| *Coffeea benghalensis* B. Heyne ex Schult. | Bankoffee           | Shrub  | SJ      | All upazilas | -    | Robayda 2151 |
| *Dentella serpyllifolia* Wall. ex Craib | Bhuipat            | Herb, pr| FL      | All upazilas | -    | Robayda 2214 |
| *Gardenia jasminoides* J. Ellis | Gandharaj           | Shrub, SJ, RS | All upazilas | O     | Robayda 464  |
| *Geophila repens* (L.) I.M. Johnst. | Koodi Munkooni    | Herb, pr| SJ      | B, M         | M    | Robayda 2118 |
| *Hedyotis corymbosa* (L.) Lam.  | Khet papra          | Herb, pr| FL      | All upazilas | M    | Robayda 1945 |
| *H. diffusa* Willd.             | -                   | Herb, pr| RS, ML  | All upazilas | -    | Robayda 2639 |
| *Hymenodictyon orixense* (Roxb.) Mabb. | Blutum              | Tree, m| RS      | M, T         |      | Robayda 2622 |
| *Ixora acuminata* Roxb.         | Rangan              | Shrub  | SJ      | S, M         | -    | Robayda 2172 |
| *L. chinensis* Lam.             | Rangan              | Shrub  | RS (pl) | All upazilas | O    | Robayda 627  |
| *L. cuneifolia* Roxb.           | Rangan              | Shrub  | SJ      | B, S, M      | -    | Robayda 61   |
| *Meyna spinosa* Roxb. ex Link   | Monkata             | Shrub  | SJ      | S, NS, R     | -    | Robayda 61   |
| *Morinda angustifolia* Roxb.    | Daru haridra, Banomali | Shrub  | SJ      | B, S, M      | M    | Robayda 06   |
| *Mussaenda erythrophylla* Schumach. & Thonn. | Machhenda           | Shrub  | RS (pl) | NS, S        | O    | Robayda 2767 |
| *Neolamarckia cadamba* (Roxb.) Bosser | Kadam              | Tree, m| RS      | All upazilas | O    | Robayda 1359 |
| *Psychotria monticola* Kurz     | -                   | Shrub  | SJ      | B            | -    | Robayda 2326 |
| *Richardia scabra* L.           | -                   | Herb, pr| FL, RS  | P, R         | -    | Robayda 2215 |
| *Spermageoce articularis* L. f. | Atharogia           | Herb, er| FL, RS  | All upazilas | -    | Robayda 773  |
| *S. latifolia* Aubl.            | Ghuiojhil shak      | Herb, er| FL, RS  | All upazilas | -    | Robayda 2236 |
| **ASTERACEAE** Bercht. & J. Presl |                     |        |         |              |      |              |
| Acmella radicans (Jacq.) R.K. Jansen | -                   | Herb, er| RS      | S            | -    | Robayda 1670 |
| Ageratum conyzoides L.          | Fulkuri             | Herb, er| RS      | All upazilas | -    | Robayda 1976 |
| *B. densiflora* DC.             | Kuksim              | Herb, er| RS, FL  | P, S, NS     | -    | Robayda 263  |
| *B. membranacea* DC.            | Kuksim              | Herb, er| RS, FL  | All upazilas | -    | Robayda 1808 |
| *Centipedes minima* (L.) A. Braun & Asch. | Nakchikni        | Herb, pr| WL, ML  | S, NS, P     | -    | Robayda 1672 |
| *Chromolaena odorata* (L.) R.M. King & H. Rob. | Asamalata         | Shrub  | RS, SJ  | All upazilas | M    | Robayda 1928 |
| *Cosmos sulphureus* Cav.        | Cosmos              | Herb, er| RS      | All upazilas | O    | Robayda 2759 |
| *Cotula hemisphaerica* (Roxb.) Wall. ex Benth. | Babuni            | Herb, pr| ML      | S, NS, B, M  | -    | Robayda 1161 |
| *Crassocephalum crepidioides* (Benth.) S. Moore | -                   | Herb, er| AF, FL  | P            | -    | Robayda 2235 |
| *Eclipta alba* (L.) Hassk.      | Kalo keshi          | Herb, pr| FL, RS  | All upazilas | M    | Robayda 2306 |
Table 1: Taxonomic List

| Scientific name | Bangla name | Habit | Habitat | Distribution | Use | RSE |
|-----------------|-------------|-------|---------|--------------|-----|-----|
| *Elephantopus scaber* L. | Hastipadi | Herb, er | FL | M, S | M | Robayda 54 |
| *Emilia sonchifolia* (L.) DC. | Mechitra | Herb, er | RS | NS, P | - | Robayda 2460 |
| *Enydra fluctuans* DC. | Helenchha | Herb, aq | WL | All upazilas | V | Robayda 1216 |
| *Gnaphalia luteoaulbum* L. | Bara Kamra | Herb, er | ML, AF | All upazilas | - | Robayda 194 |
| *Grangea maderaspatana* (L.) Poir. | Nemutu | Herb, pr | ML | NS, P, B, S | M | Robayda 169 |
| *Mikania cordata* (Burm. f.) B.L. Rob. | Taralata | Herb, cl | RS, SJ | All upazilas | M | Robayda 1986 |
| *Parthenium hysterophorus* L. | - | Herb, er | RS | NS | - | Robayda 2967 |
| *Pseudelephantopus spicatus* (B. Juss. ex Aubl.) C.F. Baker | - | Herb, er | RS, FL | P, NS, B, S, M | - | Robayda 1791 |
| *Sonchus wightianus* DC. | - | Herb, er | FL | P | - | Robayda 1760 |
| *Spilanthes calva* DC. | Surja kannya | Herb, dc | FL, RS | All upazilas | M | Robayda 2177 |
| *Synedrella nodiflora* (L.) Gaertn. | Nakphul | Herb, er | FL, RS | All upazilas | M | Robayda 1824 |
| *Tridax procumbens* L. | Tridhara | Herb, pc | RS | All upazilas | M | Robayda 1919 |
| *Veronica cinerea* (L.) Less. | Shialmutra | Herb, er | RS, FL | All upazilas | - | Robayda 1389 |
| *Wedelia trioloba* (L.) Hitchc. | Baharibhringaraj | Herb, pc | RS, FL | B, NS | O | Robayda 2455 |
| *Xanthium indicum* J. Koenig ex Roxb. | Ghagra | Herb, er | ML | P, B, M, S | M | Robayda 933 |

LEGEND: Habit. aq = aquatic, cl = climbing, dc = decumbent, er = erect, l = large, m = medium, pc = procumbent, pr = prostrate, ps = parasitic, s = small, sc = scandent, tw = twiner. Habitat. AF = Agricultural Field, cu = Cultivated, FL = Fallow Land, ML = Marginal Land, PI = Planted, RS = Roadsides, SJ = Scrub Jungle, SP = Semi Parasitic, TT = Tree Trunk, WL = Wet Land, WD = Wood Land. Distrib. = Distribution. B = Belabo, M = Monohordi, NS = Narsingdi Sadar, P = Palash, R = Raipur, S = Shibpur. Use. B & Th = Binding & Thatching Material, Dy = dye, Fb = Fiber, Fd = fodder, Fr = Fruit, Fw = Fuel Wood, M = Medicine, O = Ornamental, Ol = Oil, Pu = pulse, Sp = Spice, T = Timber, and V = Vegetable. RSE = Representative Specimens Examined.

Results and Discussion

This study has confirmed the occurrence of total 468 species of dicotyledons (Magnoliopsida) under 326 genera and 85 families in Narsingdi district. Among these families, 30 were represented by single species each and only 17 by more than 10 (10-53) species. Fabaceae with 53 species of 37 genera was recognized as the largest family in this study area, followed by Asteraceae with 25 species under 24 genera and Rubiaceae with 21 species of 17 genera. *Ficus* L. with eight species was the largest genus in this area, which was followed by *Persicaria* (L.) Mill. and *Solanum* L. with seven species each and *Lindernia* All. with six species, *Phyllanthus* L. with five species and *Acacia* Mill., *Amaranthus* L., *Senna* Mill., *Sida* L. and *Trichosanthes* L. with four species each. The rest of the families were consisted of two or three species each. These data on the genera and species indicate that Narsingdi district is still rich in dicotyledons. The study area was dominated by the herbs, comprised of 230 (49.14%) species that were followed by the trees of 120 (25.64%) species, and the shrubs of 118 (25.21%) species. In this area, the roadsides, harbouring the highest number of species (226 species), were the most common type of habitat and the agricultural fields with relatively lower number of species (19 species) were the occasional habitat.

In Narsingdi district, total 200 species were commonly distributed in its all upazilas, 58 species in two upazilas, 83 species in three upazilas, 58 species in four upazilas and only four species in five upazilas. 14 species exclusively occurred in Palash, 13 in each of Belabo and Shibpur, 10 in Narsingdi Sadar, nine in Monohordi and only six in Raipur upazila. Belabo upazila accommodated total 351 species, which was followed by Shibpur, Monohordi, Narsingdi Sadar, Palash and Raipur upazilas harbouring 344, 317, 313, 291 and 248 species, respectively. Based on these data, the dicotyledonous flora was considered relatively richer in Belabo, Shibpur, Monohordi and Narsingdi Sadar upazilas, in comparison to those of Palash and Raipur upazilas. However, if these species enumeration are considered in term of total land areas of these upazilas,
then their sequence turns in to Belabo, followed by Palash, Monohordi, Shibpur, Narsingdi Sadar, and Raipura. According to Jaccard coefficient, the similarity in six upazilas of Narsingdi district in harboring the dicotyledonous species was 75.47% (Fig. 1). It indicates that the species composition in these upazilas are more similar rather than different if they are compared all together. However, the similarities in between the two upazilas only varied from 9.03% (in Monohordi and Raipura upazilas) to 50% (in Monohordi and Belabo upazilas).

Fig. 1. Similarity in species composition in the upazilas of Narsingdi district based on Jaccard coefficient (Jaccard, 1912).

These records on dicotyledonous species of six upazilas of Narsingdi district are higher than the enumeration of this plant group in some upazilas of other districts by the previous studies, (Islam et al., 2009; Rahman et al., 2012; Sarker et al., 2013; Sajib et al., 2014; Mahmudah et al., 2017; Rahman et al., 2019). Whereas, the record on dicot species of Raipura upazila by this study is somewhat lower than that of Munshiganj Sadar upazila by Rahman et al., 2013, though those of other upazilas of Narsingdi district are notably higher. Considering the size of the study area, the dicotyledonous flora of whole Narsingdi district seems richer in comparison to those of Sundarbans, Patuakhali district and Rajshahi district, as reported by Rahman et al. (2017), Sultana (2012) and Rahman (2013), respectively. Whereas, the dicotyledones of this district is relatively poorer than those of few forest areas viz., Sitapahar Reserve Forest (Uddin et al., 1998; Rashid and Chowdhury, 2013), Satchari National Park (Arefin et al., 2011); Hazarikhil Wildlife Sanctuary (Rahman, 2017), and Rajkandi Reserve Forest (Haque et al., 2018). These variation in species composition of different areas might be due to different natural, biogeographical and anthropogenic factors, drivers or threats etc. functioning in these area, and the methods and intenseness of the studies as well.

During this study, total 333 dicot species of Narsingdi district were figured out as economically useful. The major categories of these species were medicinal (167 species), timber (46 species), fruit (37 species), ornamental (60 species), vegetable (43 species), fodder (9 species), fiber (11 species), fuel wood (12 species), oil yielding (five species), pulse (four species) and spices (three species). Among these species, 67 were recognized to be useful in two to three categories. The total number of dicot species (468) recorded from Narsingdi district during this study was 17.84% of the total 2623 species, and the number of dicot families (89) was 56.32% of
the total 158 families reported for Bangladesh by Ahmed et al. (2008-2009). However, these proportions of the dicots of this district would be decreased if the flora of Bangladesh is explored completely.

One threatened species Rauvolfia serpentina (L.) Benth. ex Kurz found in the study area is already included in Red Data Book of Vascular Plants of Bangladesh (Khan et al., 2001). The species Geophila repens (L.) I.M. Johnst., rediscovered (Khanam et al., 2018) from this area, wasis found as threatened there, which is not yet included in the Red Data Book of Vascular Plants of Bangladesh. In the study area, the populations of Geophila repens (L.) I. M. Johnst. and Rauvolfia serpentina (L.) Benth. ex Kurz were comprised of total 50 and nine individuals, respectively. G. repens and R. serpentina were confined to two and four localities with the Extent of Occurrence (EoO) and Area of Occupancy (Aoo) of 250 km² and 25 km², and 280 km² and 50 km², respectively. Another species Acmella radicans (Jacq.) R.K. Jansen was found in five localities of Shibpur upazila with total 40 individuals only. Its EoO and Aoo were estimated as 120 km² and 15 km², respectively. The regeneration in these three species was poor and their localities were under the regular stress of habitat destruction due to which these species have been considered as Endangered (E) in Narsingdi district. Both of Acmella radicans and Geophila repens might be included in the Red Data Book of Vascular Plants of Bangladesh and IUCN Red List for Bangladesh following exploration in other areas of this country. Different anthropogenic activities continuously performed by increased human population, especially vegetation clearing, unnecessary firing, unplanned agricultural extension, over exploitation of natural resources, and habitat fragmentation and depletion; soil erosion; invasion of some exotic species (e.g. Acacia auriculiformis, Chromolaena odorata, Eucalyptus camaldulensis, Mikania cordata and Parthenium hysterophorus); poor regeneration in some species; lack of awareness in the local people; and lack of proper management programs etc. are the major functional threats to the flora of the study area.

The taxonomic information provided by this study on the species of dicotyledons extant in Narsingdi district can serve as an important guiding database to track the trend of changes in the floristic composition, plant species diversity and vegetation in course of time due to natural and anthropogenic stresses, contribute in undertaking appropriate biodiversity conservation initiatives and plant resource-based socioeconomic development and help in estimating the impacts of climate change in this area. This study highly recommends for regular inventory, monitoring and specific research programs on the flora and plant diversity of this district and implementation of appropriate conservation measures for the threatened and depleting plant species of this area.

Acknowledgements
The authors gratefully acknowledge the Bangladesh University Grants Commissions for awarding the Ph D Fellowship to the first author for conducting her research including this study. They are grateful to the authority of Bangladesh National Herbarium (DACB) for allowing access to their libraries and relevant herbarium materials. The authors are also thankful to the Reviewers of the Journal for their critical review of the manuscript.

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). 2008-2009. Encyclopedia of Flora and Fauna of Bangladesh, Vols. 6-10 and 12, Asiatic Society of Bangladesh, Dhaka.
Alam, M.S., Hassan, M.A. and Uddin, M.Z. 2006. A Preliminary Checklist of the Angiospermic flora of Ghagotia Union under Kapasia Upazila in Gazipur District, Bangladesh. Bangladesh J. Plant Taxon 13(2): 155–170.
Rahman, A.H.M.M. 2013. Angiosperm Flora of Rajshahi District, Bangladesh. American Journal of Life Sciences 1(3): 105–112.

Rahman, M.A. 2017. Plant Diversity in Hazarikhil Wildlife Sanctuary of Chittagong and its Conservation Management. J. biodivers. Conserv. Bioresour. Manag. 3(2): 43–56.

Rahman, M.O., Begum, M. and Ullah, M.W. 2013. Angiosperm Flora of Sadar Upazila of Munshiganj District, Bangladesh. Bangladesh J. Plant Taxon. 20(2): 213–231.

Rahman, M.O. and Hassan, M.A. 1995. Angiospermic flora of Bhawal National Park, Gazipur (Bangladesh). Bangladesh J. Plant Taxon. 2(1&2): 47–80.

Rahman, M.O., Antara, R.T., Begum, M. and Hassan, M.A. 2012. Floristic diversity of Dhamrai upazila of Dhaka with emphasis on medicinal plants. Bangladesh J. Bot. 41(1): 71–85.

Rahman, M.O., Sayma, N.J. and Begum, M. 2019. Angiospermic flora of Gafargaon upazila of Mymensingh district focusing on medicinally important species. Bangladesh J. Plant Taxon. 26(2): 269–283.

Rashid, M.H.U. and Chowdhury, M.A.I. 2013. Additions to the Angiosperm Flora in the Sitapahar Reserve Forest of Kaptai, Rangamati, Bangladesh. Bangladesh J. Plant Taxon. 20(2): 255–257.

Rashid, S.H. and Mia, M.M.K. 2001. Angiospermic flora of Madhupur National Park, Tangail, Bangladesh. Bangladesh J. Plant Taxon. 8(2): 63–82.

Rashid, S.H., Rahman, M.M. and Hossain, A.B.M.E. 1995. An inventory of the under growth resources in Chandra Sal forest at Gazipur. Bangladesh. Bangladesh J. Life Sci. 7(1&2): 111–118.

Sajib, N.H., Uddin, S.B. and Islam, M.M. 2014. Angiospermic Plant Diversity of Subarnachar Upazila in Noakhali, Bangladesh. J. Asiat. Soc. Bangladesh, Sci. 40(1): 39–60.

Sarker, K., Islam, M.R., Uddin, M.Z., and Hassan, M.A. 2013. Angiosperm Flora of Manikgonj Sadar Upazila, Bangladesh. J. Asiat. Soc. Bangladesh, Sci. 39(2): 147–166.

Shetu, S.S., Khan, S.A. and Uddin, S.N. 2018. Checklist of Angiosperms extant in Mirpur area of Dhaka City, Jahangirnagar University J. Biol. Sci. 7(2): 47–64.

Singh, H.B. and Subramaniam, B. 2008. Field Manual on Herbarium Techniques. National Institute of Science Communication and Information Resources, pp. 1–297.

Sultana, M. 2012. Taxonomic and ethnobotanical studies on the angiospermic flora of Patuakhali district in Bangladesh. Ph.D. Thesis (Unpublished). Department of Botany, University of Dhaka.

The Plant List, 2013. The Plant List, a working list of all plant species. Version 1.1 <http://www.theplantlist.org/>. Accessed on 15 October 2018.

TROPICOS, 2017. Tropicos.org <www.tropicos.org>. Missouri Botanical Garden, Saint Louis, Missouri, USA. Accessed on 14 July 2019.

Tutul, E., Uddin, M.Z., Rahman, M.O. and Hassan, M.A., 2010, Angiospermic flora of Ructnia Sal forest, Bangladesh, II. Magnoliopsida (Dicots). Bangladesh J. Plant Taxon. 17(1): 33–53.

Uddin, S.N., Khan, M.S., Hassan, M.A. and Alam, M.K. 1998. An annotated checklist of angiospermic flora of Sitapahar at Kaptai in Bangladesh. Bangladesh J. Plant Taxon. 5(1): 13–46.

Van Valkenburg, J.L.C.H. and Bunyawaphathsara. N. (Eds). 2002. Plant Resources of South–East Asia, No. 12(2). Medicinal and Poisonous Plants 2. Prosea Foundation, Bogor, Indonesia, 782 pp.

Wu, Z.Y. and Raven, P.H. (Eds). 1994-2001. Flora of China, Vols. 8, 15–18 and 24. Missouri Botanical Garden Press, St. Louis, USA.

Wu, Z.Y., Raven, P.H. and Hong, D.Y. (Eds). 1999-2013. Flora of China, Vols. 2–7, 9–14, 19–23 and 25. Missouri Botanical Garden Press, St. Louis.

(Manuscript received on 10 January 2020; revised on 10 May 2020)