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# FLORISTIC STUDY IN LALPUR UPAZILA OF NATORE DISTRICT, BANGLADESH: IDENTIFICATION, DISTRIBUTION AND ECONOMIC POTENTIAL

M. OLIUR RAHMAN*, SHARIKA HASSAN AND MOMTAZ BEGUM
*Department of Botany, University of Dhaka, Dhaka-1000, Bangladesh*

**Abstract**

Floristic study in Lalpur Upazila of Natore district has identified 216 species distributed in 173 genera and 72 families, of which Magnoliopsida (Dicotyledons) is represented by 188 species under 147 genera and 60 families, while Liliopsida (Monocotyledons) is constituted by 28 species under 26 genera and 12 families. In Magnoliopsida, Asteraceae is the largest family represented by 16 species, whereas in Liliopsida, Poaceae is the largest family consisting of 8 species. The genus *Solanum* is the largest in Magnoliopsida, whereas *Cyperus* is the largest genus in Liliopsida. Habit analysis reveals that herbs are represented by 118 species (55%), shrubs by 32 species (15%), trees by 50 species (23%) and climbers by 16 species (7%). Potential of the angiospermic flora has been recognized by the occurrence of 57 medicinal plant species which are used over 30 diseases for the primary health care of the local people of Lalpur Upazila. Though the study area is floristically rich, some plant species are under threats. The rare and medicinally as well as economically important species to this area need to be conserved through both *in-situ* and *ex-situ* approaches for sustainable development.

*Key words:* Angiosperms, Floristics, Medicinal plants, Conservation, Natore

## Introduction

The importance of floristic studies has been recognized by the Conference of Parties, i.e. the signatory countries of the Convention of Biological Diversity (CBD). As a consequence of the process of implementing the Convention on Biological Diversity, the need for taxonomic knowledge as a means of underpinning biodiversity conservation is now widely accepted by governments (Heywood 2004).

The development and sustainable use of the plant resources of a country is dependent on a thorough knowledge of the flora. Sustainable use of botanical resources can play an important role in the economy of the country. The account of the flora of Bangladesh so far done is inadequate compared to the estimated huge floral diversity of the country. Considering the present pace of destruction of the forests, wetlands and the general habitats, there is an imminent danger of loosing a number of plant species even before

*Author for correspondence: <oliur.bot@du.ac.bd>.

they are identified and studied. To save the species from further annihilation, urgent exploration is necessary, firstly to record what all genetic resources we have, to explore their potential and to identify those that are threatened so that proper measures may be undertaken to conserve them.

Lalpur Upazila of Natore district lies between 24.07' and 24.18' N and between 88.52' and 89.08' E, with an area of 327.92 sq. km. The Upazila is bounded on the north by Bagatipara and Baraigram Upazilas and Ishwardi, Bheramara and Daulatpur (Kushtia) Upazilas on the south and Daulatpur, Bheramara Upazilas on the east and Bagha Upazila on the west. Lalpur Upazila consists of 10 unions, namely Lalpur, Arbab, Kadamchilan, Gopalpur, Duaria, Durduaria, Walia, Bilmaria, Salampur, Chandhupail (Fig. 1).


Fig. 1. Map of Lalpur Upazila showing the sampling sites of different unions (Source: https://photos.wikimapia.org/p/00/02/59/14/29_full.gif).

The significance of studying floristic diversity has been acknowledged and carried out in Bangladesh since last few decades (Khan 1972-1987, Khan and Banu 1972, Khan and Hassan 1984, Khan and Rahman 1989-2002). Recently, several floristic and biodiversity studies in different areas and Upazilas of Bangladesh have been done (Khan *et al*. 1994, Rahman and Hassan 1995, Khan and Huq 2001, Tutul *et al*. 2010, Rahman and Alam 2013, Rahman *et al*. 2012, 2013). However, no attention has been paid on the flora of Lalpur Upazila and its potential has never been assessed. Therefore, there is dire need to explore, identify, document and conserve the plant wealth of the area for betterment of mankind especially those plant resources which are used for primary healthcare. The objectives of the present study are three-folds, *viz.*, (i) to explore and identify the angiosperms of Lalpur Upazila of Natore district with their distributional abundance, (ii) to determine the potential of the plant species, particularly the medicinal plants, and (iii) to investigate the threatened species and suggest their conservation measures.

## Materials and Methods

Five botanical expeditions from March, 2017 to April, 2018 were made to collect plant specimens from Lalpur Upazila covering all seasons. Collected specimens were processed using standard herbarium techniques (Hyland 1972), and identified by experts, consultation of standard literature, and matching with herbarium specimens deposited at both Dhaka University Salar Khan Herbarium and Bangladesh National Herbarium. The descriptions were compared with Hooker (1872-1897), Khan (1972-1987), Dassanayake and Fosberg (1980-1991) and Khan and Rahman (1989-2002). The updated nomenclature of the species has been cited following Ahmed *et al.* (2008-2009), Siddique *et al*. (2007), Rashid and Rahman (2011, 2012), The Plant List (2013), Rahman and Hassan (2017) and TROPICOS (2017). Status of occurrence of the species has been determined on the basis of field observation. Common names of the species are based on Huq (1986), and interview with the local people. The potential uses of the species including the medicinal plants have been recorded through interviews with the local people of the area, and from the relevant literature (van Valkenburg and Bunyapraphatsara 2002, Yusuf *et al*. 2009). Each species is supplemented by its local name, family name, habit, habitat, flowering and fruiting period, distribution, and potential uses.

## Results and Discussion

The present study has identified 216 angiosperm taxa from Lalpur Upazila of Natore district, which belong to 173 genera and 72 families. The identified taxa along with their local name, family name, habit, habitat, flowering and fruiting time, distributional

abundance, and potential use are presented in Table 3. Magnoliopsida (Dicots) is represented by 188 taxa under 137 genera and 60 families, while Liliopsida (Monocots) is constituted by 28 taxa under 26 genera and 12 families. Magnoliopsida constitute 85% while Liliopsida covers 15% of the total identified taxa.

The numbers of angiosperm taxa recognized under 72 families show variation. The family Asteraceae is the largest family in Magnoliopsida represented by 16 species, followed by Euphorbiaceae with 10 taxa. Some other large families include Solanaceae (9 taxa), Cucurbitaceae and Fabaceae (8 taxa each), Caesalpiniaceae (7 taxa), and Acanthaceae and Malvaceae (6 taxa each). In Liliopsida, Poaceae appears as the largest family bearing 8 taxa, followed by Cyperaceae with 5 taxa. Ten dominant families of the study area are shown in Fig. 2 along with their number of genera and species.

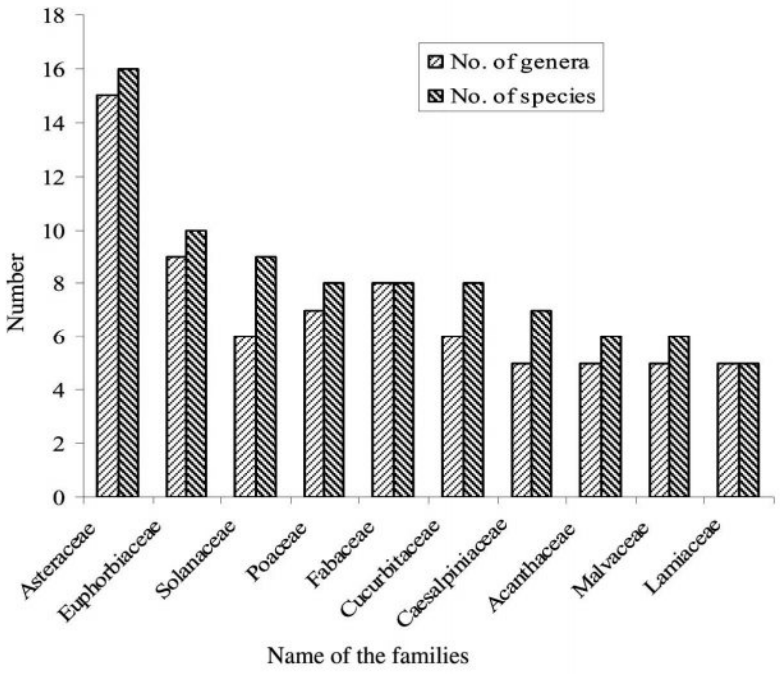


Fig. 2. Ten largest angiosperm families of Lalpur Upazila showing number of genera and species.

Ten dominant families found in Lalpur Upazila comprise 83 species that represent about 38% of the total species identified, while the remaining 62 families with a total 133 species represent 62% of the total. Twenty-three families in Magnoliopsida are represented by a single species in the present investigation.

**Table 1. List of angiosperm species in Lalpur Upazila with potential uses and voucher specimen.**

| Scientific name | Local name | Family name | Habit | Habitat | Fl. &Fr. | Distribution | Potential uses | Voucher specimen |
|---|---|---|---|---|---|---|---|---|
| *Abroma augusta* (L.) L. f. | Ulotkombol | Sterculiaceae | Shrub | Rs | 6-12 | Common | Medicinal | Sharika 73 (DUSH) |
| *Abutilon indicum* (L.) Sweet | Potari | Malvaceae | Herb | Rs | 7-4 | Common | Medicinal | Sharika 150 (DUSH) |
| *Acacia auriculiformis* Benth. | Akashmoni | Mimosaceae | Tree | Rs | 6-2 | Very common | Timber, ornamental | Sharika 166 (DUSH) |
| *A. mangium* Willd. | Mangium | Mimosaceae | Tree | Pl | 5-12 | Common | Timber | Sharika 223 (DUSH) |
| *A. nilotica* (L.) Del. | Babla | Mimosaceae | Tree | Rs | 5-4 | Common | Tannin, medicinal | Sharika 93 (DUSH) |
| *Acalypha indica* L. | Mukta-jhuri | Euphorbiaceae | Herb | Rb | 12-4 | Very common | Medicinal | Sharika 78 (DUSH) |
| *Acanthus ilicifolius* L.* | Hargoza | Acanthaceae | Shrub | Rb | 3-7 | Rare | Medicinal | Sharika 89 (DUSH) |
| *Achyranthes aspera* L. | Apang | Amaranthaceae | Herb | Wl | 1-12 | Very common | Medicinal | Sharika 79 (DUSH) |
| *Aegle marmelos* (L.) Correa | Bel | Rutaceae | Tree | Pl | 4-12 | Common | Fruits edible, medicinal | Sharika 64 (DUSH) |
| *Agave cantula* Roxb. | Cantula | Agavaceae | Herb | Pl | 7-10 | Common | Ornamental, fibre | Sharika 212 (DUSH) |
| *Ageratum conyzoides* L. | Ochunti | Asteraceae | Herb | Rs | 11-6 | Common | Medicinal | Sharika 36 (DUSH) |
| *Albizia lebbeck* (L.) Benth. & Hook. | Shirish | Mimosaceae | Tree | Rs | 4-10 | Common | Timber | Sharika 148 (DUSH) |
| *A. procera* (Roxb.) Benth. | Shil-Koroi | Mimosaceae | Tree | Rs | 6-11 | Common | Timber | Sharika 171 (DUSH) |
| *Alocasia macrorrhizos* (L.) G. Don in Sweet | Man Kochu | Araceae | Herb | Rb | 6-11 | Very common | Tuber edible, medicinal | Sharika 229 (DUSH) |
| *Alstonia macrophylla* Wall. *ex* G. Don | Chaatim | Apocynaceae | Tree | Pl | 6-1 | Common | Medicinal, oil | Sharika 169 (DUSH) |
| *Alternanthera philoxeroides* (St.) Griseb. | Helencha | Amaranthaceae | Herb | Wp | 3-6 | Common | Vegetable, medicinal | Sharika 47 (DUSH) |
| *A. sessilis* R. Br. | Chanchishak | Amaranthaceae | Herb | Fl | 1-12 | Common | Medicinal, vegetable | Sharika 16 (DUSH) |

(Contd.)

| Scientific name | Local name | Family name | Habit | Habitat | Fl. &Fr. | Distribution | Potential uses | Voucher specimen |
|---|---|---|---|---|---|---|---|---|
| *Amaranthus spinosus* L. | Katanotey | Amaranthaceae | Herb | Rs | 1-12 | Common | Leafy vegetable, medicinal | Sharika 7 (DUSH) |
| *A. tricolor* L. | Lal shak | Amaranthaceae | Herb | Pl | 1-12 | Common | Vegetable | Sharika 172 (DUSH) |
| *A. viridis* L. | Notey shak | Amaranthaceae | Herb | Rs | 1-12 | Common | Leafy vegetable | Sharika 76 (DUSH) |
| *Ammannia multiflora* Roxb. | Jonglimendi | Lythraceae | Herb | Fl | 7-9 | Common | - | Sharika 204 (DUSH) |
| *Andrographis paniculata* (Burm. f.) Wall. *ex* Nees* | Kalomegh | Acanthaceae | Herb | Vt | 11-5 | Rare | Medicinal | Sharika 117 (DUSH) |
| *Anisomeles indica* (L.) Kuntze | Gobura | Lamiaceae | Herb | Fl | 10-6 | Common | Essential oil, medicinal | Sharika 69 (DUSH) |
| *Annona reticulata* L. | Nona | Annonaceae | Tree | Cu | 10-1 | Common | Fruits edible | Sharika 214 (DUSH) |
| *A. squamosa* L. | Aata phol | Annonaceae | Tree | Cu | 3-12 | Common | Fruits edible | Sharika 136 (DUSH) |
| *Arachis hypogaea* L. | China badam | Fabaceae | Herb | Ch | 3-12 | Common | Fruits edible | Sharika 43 (DUSH) |
| *Argemone maxicana* L. | Shialkanta | Papaveraceae | Herb | Fl | 2-6 | Common | Medicinal | Sharika 14 (DUSH) |
| *Artocarpus lacucha* Buch-Ham. | Deua | Moraceae | Tree | Cu | 2-9 | Common | Fruits edible | Sharika 61 (DUSH) |
| *Arundo donax* L. | Nalkhagra | Poaceae | Herb | Rs | 6-12 | Very common | - | Sharika 47 (DUSH) |
| *Averrhoa carambola* L.* | Kamranga | Oxalidaceae | Tree | Pl | 9-3 | Rare | Fruits edible | Sharika 152 (DUSH) |
| *A. bilimbi* L.* | Bilombi | Oxalidaceae | Tree | Cu | 10-2 | Rare | Fruits edible | Sharika 205 (DUSH) |
| *Azadirachta indica* A. Juss. | Neem | Meliaceae | Tree | Pl | 3-7 | Very common | Medicinal | Sharika 94 (DUSH) |
| *Baccaurea ramiflora* Lour. | Latkan | Euphorbiaceae | Tree | Cu | 6-9 | Common | Fruits edible | Sharika 92 (DUSH) |
| *Bacopa monnieri* (L.) Pennell* | Brammi | Scrophulariaceae | Herb | Fl | 5-12 | Rare | Medicinal | Sharika 119 (DUSH) |
| *Barringtonia acutangula* (L.) Gaertn.* | Hijol | Lecythidaceae | Tree | Fl | 5-9 | Rare | Medicinal | Sharika 191 (DUSH) |
| *Benincasa hispida* (Thunb.) Cogn. | Chal kumra | Cucurbitaceae | Herb | Cu | 5-11 | Common | Vegetable, medicinal | Sharika 167 (DUSH) |

(Contd.)

| Scientific name | Local name | Family name | Habit | Habitat | Fl. &Fr. | Distribution | Potential uses | Voucher specimen |
|---|---|---|---|---|---|---|---|---|
| *Beta vulgaris* L.* | Beet palong | Chenopodiaceae | Herb | Cu | 3-4 | Rare | Leafy vegetable, medicinal | Sharika 127 (DUSH) |
| *Blumea lacera* (Burm.f.) DC. | Kukurshunga | Asteraceae | Herb | Fl | 9-2 | Common | Medicinal | Sharika 27 (DUSH) |
| *B. membranacea* Wall. *ex* DC. | Kuksung | Asteraceae | Herb | Rs | 1-3 | Common | Medicinal | Sharika 180 (DUSH) |
| *Boerhavia diffusa* L. | Punarnava | Nyctaginaceae | Herb | Rs | 4-8 | Common | Medicinal | Sharika 55 (DUSH) |
| *Bombax ceiba* L. | Shimul tula | Bombacaceae | Tree | Pl | 2-5 | Common | Fibre | Sharika 189 (DUSH) |
| *B. insigne* Wall.* | Bharoti shimul | Bombacaceae | Tree | Rs | 12-4 | Rare | Fibre, Timber | Sharika 156 (DUSH) |
| *Bougainvillea spectabilis* Willd. | Baganbilash | Nyctaginaceae | Shrub | Pl | 1-12 | Common | Ornamental | Sharika 107 (DUSH) |
| *Caesalpinia bonduc* (L.) Roxb. | Nata | Caesalpiniaceae | Climber | Rs | 7-3 | Common | Medicinal | Sharika 209 (DUSH) |
| *Calotropis gigantea* Br. | Akanda | Asclepiadaceae | Shrub | Rs | 1-12 | Very common | Medicinal | Sharika 01 (DUSH) |
| *Canna indica* L. | Kolaboti | Cannaceae | Herb | Pl | 4-11 | Common | Ornamental, medicinal | Sharika 227 (DUSH) |
| *Capsicum frutescens* L. | Morich | Solanaceae | Shrub | Pl | 1-12 | Common | Spice | Sharika 104 (DUSH) |
| *Careya arborea* Roxb.* | Biri-pata | Lecythidaceae | Tree | Vt | 5-7 | Rare | Fruits edible, medicinal, timber | Sharika 163 (DUSH) |
| *Cassia fistula* L. | Shonalu | Caesalpiniaceae | Tree | Rs | 3-6 | Very common | Ornamental | Sharika 178 (DUSH) |
| *Casuarina equisetifolia* L. | Jhau | Casuarinaceae | Tree | Rs | 2-11 | Common | Ornamental | Sharika 179 (DUSH) |
| *Cajanus cajan* (L.) Millsp. | Orohor | Fabaceae | Shrub | Cu | 1-12 | Common | Pulse | Sharika 199 (DUSH) |
| *Cayratia trifolia* (L.) Domin | Anol-lota | Vitaceae | Climber | Vt | 1-12 | Common | Medicinal | Sharika 233 (DUSH) |
| *Celosia cristata* L. | Morog phul | Amaranthaceae | Herb | Pl | 1-12 | Common | Ornamental | Sharika 67 (DUSH) |
| *Centella asiatica* (L.) Urban. | Thankuni | Apiaceae | Herb | Fl | 3-12 | Common | Medicinal | Sharika 154 (DUSH) |

(Contd.)

| Scientific name | Local name | Family name | Habit | Habitat | Fl. &Fr. | Distribution | Potential uses | Voucher specimen |
|---|---|---|---|---|---|---|---|---|
| *Chenopodium album* L. | Bothua Shak | Chenopodiaceae | Herb | Ch | 12-3 | Common | Leafy vegetable, medicinal | Sharika 41 (DUSH) |
| *C. ambrosioides* L. | Bon botua | Chenopodiaceae | Herb | Ch | 11-2 | Common | Medicinal | Sharika 98 (DUSH) |
| *Chrozophora rottleri* (Geiseler) A. Juss. *ex* Spreng. | Khudi-okra | Euphorbiaceae | Herb | Wl | 3-10 | Common | Medicinal | Sharika 44 (DUSH) |
| *Cinnamomum tamala* Nees. | Tejpata | Lauraceae | Tree | Pl | 2-11 | Common | Spice, medicinal | Sharika 128 (DUSH) |
| *Cirsium arvense* (L.) Scop. | Shial-kata | Asteraceae | Herb | Fl | 2-6 | Common | Medicinal, oil, alkaloid | Sharika 69 (DUSH) |
| *Cissus assamica* (Lawson) Craib | Amasha-lota | Vitaceae | Climber | Fl | 4-10 | Common | - | Sharika 238 (DUSH) |
| *Citrus aurantifolia* (Christm. & Panzer) Swingle | Lebu | Rutaceae | Tree | Pl | 3-9 | Common | Fruits edible | Sharika 77 (DUSH) |
| *C. limon* (L.) Burm. f. | Gura-lebu | Rutaceae | Tree | Pl | 3-11 | Common | Fruits edible | Sharika 158 (DUSH) |
| *Cleome gynandra* L. | Shada hurhuria | Capparaceae | Herb | Rs | 1-12 | Common | Fruits edible, Medicinal | Sharika 17 (DUSH) |
| *C. viscosa* L. | Hurhuria | Capparaceae | Herb | Rs | 1-12 | Common | Medicinal | Sharika 161 (DUSH) |
| *Clerodendrum viscosum* Vent | Bhaat | Verbenaceae | Shrub | Rs | 1-12 | Very common | Medicinal | Sharika 22 (DUSH) |
| *Clitoria ternatea* L. | Aparajita | Fabaceae | Herb | Vt | 6- 3 | Common | Medicinal, dye, tannin | Sharika 164 (DUSH) |
| *Coccinia grandis* (L.) Voigt | Telakucha | Cucurbitaceae | Herb | Vt | 3-12 | Very common | Medicinal | Sharika 10 (DUSH) |
| *Colocasia esculenta* (L.) Schott | Kochu | Araceae | Herb | Wl | 5- 9 | Very common | Vegetable, medicinal | Sharika 139 (DUSH) |
| *Commelina benghalensis* L. | Kanchira | Commelinaceae | Herb | Wt | 2-12 | Common | Green vegetable | Sharika 34 (DUSH) |

(Contd.)

| Scientific name | Local name | Family name | Habit | Habitat | Fl. &Fr. | Distribution | Potential uses | Voucher specimen |
|---|---|---|---|---|---|---|---|---|
| *Crotalaria juncea* L. | Shon | Fabaceae | Herb | Fl | 2-5 | Common | Fibre, medicinal | Sharika 143 (DUSH) |
| *Croton bonplandianum* Bail. | Bon-dhoney | Euphorbiaceae | Herb | Fl | 4-8 | Common | Medicinal | Sharika 12 (DUSH) |
| *Chrysopogon aciculatus* (Retz.) Trin. | Premkata | Poaceae | Herb | Fl | 1-12. | Very common. | Rough lawn | Sharika 215 (DUSH) |
| *Curcuma longa* L. | Holud | Zingiberaceae | Herb | Cu | 7- 9 | Comm6n | Rhizome edible, medicinal | Sharika 155 (DUSH) |
| *Cuscuta reflexa* Roxb. | Shorno-lota | Cuscutaceae | Herb | Rs | 7- 3 | Common | Medicinal | Sharika 124 (DUSH) |
| *Cynodon dactylon* Pers. | Durbaghash | Poaceae | Herb | Fl | 1-12. | Very common | Medicinal | Sharika 85 (DUSH) |
| *Cyperus difformis* L. | Behua | Cyperaceae | Herb | Rf | 7-12. | Very common. | Cattle food | Sharika 25 (DUSH) |
| *C. rotundus* L. | Mutha ghash | Cyperaceae | Herb | Rs | 1-12- | Very common. | Medicinal | Sharika 40 (DUSH) |
| *Datura metel* L. | Dhutra | Solanaceae | Herb | Rs | 1-12- | Common | Medicinal | Sharika 105 (DUSH) |
| *Delonix regia* (Boj.) Raf. | Krishnochura | Caesalpiniaceae | Tree | Rs | 4-8 | Common | Ornamental, Timber | Sharika 195 (DUSH) |
| *Desmodium triflorum* (L.) DC. | Kodaliya | Fabaceae | Herb | Fl | 1-12. | Common | Medicinal | Sharika 118 (DUSH) |
| *Dillenia indica* L. | Chalta | Dilleniaceae | Tree | Pl | 5-2 | Common | Timber, fruits edible | Sharika 157 (DUSH) |
| *Dioscorea alata* L.* | Chupri-alu | Dioscoreaceae | Climber | Cu | 10-12 | Rare | Tuber edible | Sharika 194 (DUSH) |
| *Diospyros blancoi* A. DC. | Bilati-gab | Ebanaceae | Tree | Pl | 3-8 | Common | Medicinal | Sharika 165 (DUSH) |
| *D. malabarica* (Desr.) Kost. | Deshi-gab | Ebanaceae | Tree | Pl | 5-8 | Common | Medicinal | Sharika 176 (DUSH) |
| *Duranta repens* L. | Kantamehedi | Verbenaceae | Shrub | Rs | 1-12. | Common | Hedge plant, medicinal | Sharika 109 (DUSH) |
| *Eclipta alba* (L.) Hassk. | Keshoraj | Asteraceae | Herb | Fl | 1-12- | Common | Medicinal | Sharika 50 (DUSH) |
| *Eichhornia crassipes* (St.) Sol.-Lau. | Kochuripana | Pontederiaceae | Herb | A | 1-12- | Common | Manure, fodder | Sharika 81 (DUSH) |
| *Elaeocarpus varunua* Buch..-Ham *ex* Masters | Jalpai | Elaeocarpaceae | Tree | Rs | 2- 9 | Common | Fruits edible | Sharika 184 (DUSH) |

(Contd.)

| Scientific name | Local name | Family name | Habit | Habitat | Fl. &Fr. | Distribution | Po | [illegible] |
|---|---|---|---|---|---|---|---|---|
| *Eucalyptus citriodora* Hook. | Eucalyptus | Myrtaceae | Tree | Rs | 1-12 | Common | Ti | [illegible] |
| *Eupatorium ayapana* Vent. | Ayapan | Asteraceae | Shrub | Pl | 2-3 | Common | M | [illegible] |
| *Euphorbia hirta* L. | Dudhia | Euphprbiaceae | Herb | Fl | 1-12 | Very common | M | [illegible] |
| *Ficus benghalensis* L. | Bot | Moraceae | Tree | Rs | 5-7 | Common | M | [illegible] |
| *F. hispida* L.f. | Dumur | Moraceae | Shrub | Rs | 4-8 | Common | M | [illegible] |
| *F. religiosa* L. | Ashwathwa | Moraceae | Tree | Rs | 3-9 | Common | M | [illegible] |
| *Fimbristylis miliacea* (L.) Vahl | Bara-javani | Cyperaceae | Herb | Rf | 5-11 | Common | - | [illegible] |
| *Flacourtia indica* (Burm. f.) Merr. | Boichi | Flacourtiaceae | Shrub | Fl | 1-6 | Common | M | [illegible] |
| *Foeniculum vulgare* Mill. | Pan mohuri | Apiaceae | Herb | Cu | 11-2 | Common | Fl food | [illegible] |
| *Glinus oppositifolius* (L.) A. DC. | Gima shak | Molluginaceae | Herb | Fl | 1-12 | Common | Le ve | [illegible] |
| *Glycosmis pentaphylla* (Retz.) A. DC. | Datmajon | Rutaceae | Shrub | Rs | 1-12 | Common | Fr medicinal | [illegible] |
| *Gnaphalium luteo-album* L. | Kamra | Asteraceae | Herb | Rs | 3-7 | Very common | M | [illegible] |
| *Grangea maderaspatana* (L.) Poir. | Nemuti | Asteraceae | Herb | Fl | 12-5 | Common | M | [illegible] |
| *Hemidesmus indicus* Br. | Anantamul | Asclepiadaceae | Climber | Rb | 7-12 | Common | M | [illegible] |
| *Heliotropium indicum* L. | Hatishur | Boraginaceae | Herb | Fl | 1-12 | Very common | M | [illegible] |
| *Hibiscus rosa-sinensis* L. | Joba | Malvaceae | Shrub | Pl | 1-12 | Very common | O medicinal | [illegible] |
| *H. tiliaceus* L. | Bolla | Malvaceae | Tree | Pl | 1-12 | Common | Fi | [illegible] |
| *Hydrilla verticillata* (L. f.) Rl. | Jhangi | Hydrocharitaceae | Herb | A | 1-12 | Common | M | [illegible] |
| *Hyptis suaveolens* (L.) Poit. | Tokma | Lamiaceae | Herb | Fl | 1-12 | Common | M | [illegible] |
| *Ichnocarpus frutescens* (L.) R. Br. | Loi lata | Apocynaceae | Twining shrub | Fl | 7-2 | Common | M | [illegible] |

[illegible]

| Scientific name | Local name | Family name | Habit | Habitat | Fl. &Fr. | Distribution | Potential uses | Voucher specimen |
|---|---|---|---|---|---|---|---|---|
| *Ipomoea aquatica* Forsk. | Kalmishak | Convolvulaceae | Herb | A | 1-12 | Common | Leafy vegetable | Sharika 06 (DUSH) |
| *I. batatas* L. | Misti alu | Convolvulaceae | Climber | Pl | 12-5 | Common | Tubers edible | Sharika 211 (DUSH) |
| *I. fistulosa* St. *ex* Choisy | Dhol kalmi | Convolvulaceae | Herb | Pl | 1-12 | Common | Hedge plant | Sharika 02 (DUSH) |
| *Ixora coccinea* L. | Rongon | Rubiaceae | Shrub | Pl | 1-12 | Common | Ornamental | Sharika 230 (DUSH) |
| *Jatropa gossypifolia* L. | Lal bherenda | Euphorbiaceae | Shrub | Rs | 4-7 | Common | Medicinal | Sharika 133 (DUSH) |
| *Justicia adhatoda* L. | Bashok | Acanthaceae | Shrub | Pl | 1-4 | Very common | Medicinal | Sharika 192 (DUSH) |
| *J. gendarussa* L. | Jagatmardan | Acanthaceae | Shrub | Rs | 12-5 | Very common | Medicinal | Sharika 11 (DUSH) |
| *Kyllinga brevifolia* Rottb. | Greenkylinga | Cyperaceae | Herb | Rf | 9-12 | Very common | - | Sharika 224 (DUSH) |
| *Lablab purpureus* (L.) Sweet. | Sheem | Fabaceae | Climber | Cu | 11-3 | Common | Vegetable, medicine | Sharika 137 (DUSH) |
| *Lagenaria siceraria* (Mol.) Stan. | Lau | Cucurbitaceae | Climber | Cu | 2-5 | Very common | Vegetable | Sharika 213 (DUSH) |
| *Lannea coromandelica* (Houtt.) Merr.* | Jiga | Anacardaceae | Tree | Fl | 2-6 | Rare | Medicinal | Sharika 149 (DUSH) |
| *Lasia spinosa* (L.) Thw. | Kanta kochu | Araceae | Herb | Wp | 1-11 | Very common | Vegetable, medicinal | Sharika 111 (DUSH) |
| *Launaea asplenifolia* Hk. f. | Tikdana | Asteraceae | Herb | Rs | 1-7 | Common | Medicinal | Sharika 21 (DUSH) |
| *Lemna perpusilla* Torr. | Khudipana | Lemnaceae | Herb | A | 8-12 | Common | Water purifier | Sharika 228 (DUSH) |
| *Leonurus sibiricus* L. | Rokto dron | Lamiaceae | Herb | Fl | 1-12 | Common | Medicinal | Sharika 54 (DUSH) |
| *Leucaena leucocephala* (Lamk.) de Wit. | Ipil-ipil | Mimosaceae | Tree | Pl | 5-11 | Cultivated | Timber, dye, forage | Sharika 203 (DUSH) |
| *Leucas aspera* L. | Shet dron | Lamiaceae | Herb | Fl | 6-11 | Common | Medicinal, leafy vegetable | Sharika 24 (DUSH) |
| *Lippia alba* L. | Bhutraj | Verbenaceae | Shrub | Rs | 1-12 | Common | Medicinal | Sharika 86 (DUSH) |
| *Litsea glutinosa* (Lour.) Rob. | Menda | Lauraceae | Tree | Fl | 4-1 | Common | Medicinal | Sharika 72 (DUSH) |
| *L. monopetala* (Roxb.) Pers. | Kat-menda | Lauraceae | Tree | Fl | 3-11 | Common | - | Sharika 99 (DUSH) |

(Contd.)

| Scientific name | Local name | Family name | Habit | Habitat | Fl. &Fr. | Distribution | Potential uses | Voucher specimen |
|---|---|---|---|---|---|---|---|---|
| *Ludwigia adscendens* (L.) Hara | Keshordam | Onagraceae | Herb | A | 3-12 | Common | Medicinal | Sharika 174 (DUSH) |
| *Luffa acutangula* Roxb. | Jhinga | Cucurbitaceae | Climber | Cu | 6-9 | Common | Vegetable | Sharika 188 (DUSH) |
| *L. cylindrica* (L.) Roem. | Dhundul | Cucurbitaceae | Climber | Cu | 6-12 | Common | Vegetable | Sharika 163 (DUSH) |
| *Lycopersicon esculentum* Mill. | Tomato | Solanaceae | Herb | Cu | 11-1 | Very common | Vegetable, medicinal | Sharika 142 (DUSH) |
| *Melia azedarach* L. | Gora-neem | Meliaceae | Tree | Pl | 3-7 | Common | Medicinal | Sharika 32 (DUSH) |
| *Melochia corchorifolia* L. | Tiki-okra | Apiaceae | Herb | Rs | 3-6 | Common | Medicinal | Sharika 103 (DUSH) |
| *Mikania cordata* (Burm. f.) Kost. | Asham-lata | Asteraceae | Climber | Rs | 8-2 | Common | Medicinal | Sharika 218 (DUSH) |
| *Mirabilis jalapa* L. | Shondamaloti | Nyctaginaceae | Herb | Pl | 3-5 | Common | Ornamental | Sharika 177 (DUSH) |
| *Momordica charantea* L. | Korolla | Cucurbitaceae | Herb | Cu | 5-9 | Very common | Vegetable, medicinal | Sharika 100 (DUSH) |
| *Monochoria hastata* (L.) Solms. | Baranukha | Pontederiaceae | Herb | A | 1-12 | Common | Medicinal | Sharika 197 (DUSH) |
| *M. vaginalis* (Burm. f.) Presl. | Mukha kochu | Pontederiaceae | Herb | A | 5-1 | Common | Vegetable, Medicinal | Sharika 65 (DUSH) |
| *Moringa oleifera* Lamk. | Shojina | Moringanaceae | Tree | Cu | 9-3 | Very common | Vegetable, medicinal | Sharika 74 (DUSH) |
| *Nelsonia canescens* (Lamk.) Spreng. | Paramul | Acanthaceae | Herb | Rs | 9-2 | Common | Medicinal | Sharika 70 (DUSH) |
| *Neolamarckia cadamba* (Roxb.) Merr. | Kodom | Rubiaceae | Tree | Pl | 7-12 | Common | Timber, ornamental | Sharika 239 (DUSH) |
| *Nicotiana plumbaginifolia* Viv. | Bon-tamak | Solanaceae | Herb | Fl | 3-12 | Common | Medicinal | Sharika 45 (DUSH) |
| *Nymphaea nouchali* Burm. f. | Nil-shapla | Nymphaeaceae | Herb | A | 1-12 | Very common | Vegetable | Sharika 131 (DUSH) |
| *N. pubescens* Willd. | Shada shapla | Nymphaeaceae | Herb | A | 1-12 | Very common | Vegetable, medicinal | Sharika 210 (DUSH) |
| *N. rubra* Roxb. *ex* Andr. | Lal shapla | Nymphaeaceae | Herb | A | 7-1 | Very common | Vegetable | Sharika 151 (DUSH) |

(Contd.)

| Scientific name | Local name | Family name | Habit | Habitat | Fl. &Fr. | Distribution | Potential uses | Voucher specimen |
|---|---|---|---|---|---|---|---|---|
| *Nymphoides indicum* (L.) Kuntz. | Chand-mala | Menyanthaceae | Herb | A | 9-2 | Common | Medicinal | Sharika 196 (DUSH) |
| *Ocimum tenuiflorum* L. | Tulsi | Lamiaceae | Herb | Pl | 1-12 | Common | Medicinal | Sharika 57 (DUSH) |
| *Oryza sativa* L. | Dhaan | Poaceae | Herb | Cu | 8-6 | Very common | Seed edible | Sharika 140 (DUSH) |
| *Panicum repens* L. | Dhani ghash | Poaceae | Herb | Fl | 1-12 | Common | - | Sharika 226 (DUSH) |
| *Passiflora foetida* L.* | Jhumka-lata | Passifloraceae | Herb | Fl | 5-12 | Rare | Ornamental | Sharika 198 (DUSH) |
| *Paederia cruddasiana* Prain* | Gondho bhaduli | Rubiaceae | Climber | Fl | 6-1 | Rare | Medicinal | Sharika 46 (DUSH) |
| *Peperomia pellucida* Kunth. | Luchipata | Piperaceae | Herb | Pl | 7-8 | Common | Medicinal | Sharika 110 (DUSH) |
| *Persicaria glabra* (Willd.) Gomez de la Maza | Lal-kukri | Polygonaceae | Herb | Fl | 6-2 | Common | Medicinal | Sharika 193 (DUSH) |
| *P. hydropiper* (L.) Spach | Pakurmul | Polygonaceae | Herb | Fl | 7-4 | Common | Medicinal | Sharika 13 (DUSH) |
| *P. orientalis* (L.) Spach | Bon-panimorich | Polygonaceae | Herb | Wp | 3-7 | Common | Antibacterial | Sharika 181 (DUSH) |
| *Phaseolus vulgaris* L. | Farash bean | Fabaceae | Climber | Cu | 11-3 | Common | Fruits edible, medicinal, dye | Sharika 170 (DUSH) |
| *Phyllanthus niruri* L. | Bhui amla | Euphorbiaceae | Herb | Rs | 7-9 | Common | Medicinal | Sharika 67 (DUSH) |
| *P. reticulatus* Poir. | Chitki | Euphorbiaceae | Shrub | Rs | 3-9 | Common | Medicinal | Sharika 96 (DUSH) |
| *Phragmites karka* (Retz.) Trin. *ex* Steud. | Nalkhagra | Poaceae | Herb | Rb | 1-12 | Very common | Medicinal, fibre | Sharika 90 (DUSH) |
| *Phyla nodiflora* (L.) Greene | Bhui-okra | Verbenaceae | Herb | Cl | 1-12 | Common | Medicinal | Sharika 190 (DUSH) |
| *Physalis minima* L. | Potka phul | Solanaceae | Herb | Fl | 1-12 | Common | Medicinal | Sharika 22 (DUSH) |
| *Piper nigrum* L.* | Golmorich | Piperaceae | Climber | Rs | 7-12 | Rare | Edible, medicinal | Sharika 56 (DUSH) |
| *Pistia stratiotes* L. | Topapana | Araceae | Herb | A | 9-3 | Common | Medicinal | Sharika 59 (DUSH) |
| *Pithecellobium dulce* (Roxb.) Benth. | Jilapi phul | Mimosaceae | Shrub | Pl | 1-7 | Common | Hedge plant, dye | Sharika 217 (DUSH) |

(Contd.)

| Scientific name | Local name | Family name | Habit | Habitat | Fl. &Fr. | Distribution | Potential uses | Voucher specimen |
|---|---|---|---|---|---|---|---|---|
| *Polyalthia longifolia* (Sonn.) Thw. | Debdaru | Annonaceae | Tree | Rs | 3-9 | Common | Timber, ornamental | Sharika 168 (DUSH) |
| *Polygonum plebejum* Br. | Panimorich | Polygonaceae | Herb | Wp | 1-4 | Common | Leafy vegetable, antibacterial | Sharika 35 (DUSH) |
| *Portulaca oleracea* L. | Bara-lunia | Portulacaceae | Herb | Wl | 1-12 | Common | Leafy vegetable, medicinal | Sharika 05 (DUSH) |
| *Pouzolzia zeylanica* (L.) Benn. | Kullaruki | Apiaceae | Herb | Rs | 5-12 | Common | - | Sharika 237 (DUSH) |
| *Rauvolfia serpentia* Benth. *ex* Kurz* | Shorpo-gondha | Apocynaceae | Herb | Fl | 4-9 | Rare | Medicinal | Sharika 220 (DUSH) |
| *Ricinus communis* L. | Bherenda | Euphorbiaceae | Tree | Rs | 1-12 | Common | Medicinal, oil | Sharika 75 (DUSH) |
| *Ruellia tuberosa* L. | Chatpotey | Acanthaceae | Herb | Rs | 1-12 | Common | Ornamental | Sharika 08 (DUSH) |
| *Rumex maritimus* L. | Bon-palong | Polygonaceae | Herb | Fl | 1-5 | Very common | Vegetable, Medicinal | Sharika 30 (DUSH) |
| *Saccharum officinarum* L. | Akh | Poaceae | Shrub | Cu | 7-9 | Very common | Fruits edible, Sugar | Sharika 26 (DUSH) |
| *S. spontaneum* L. | Kash | Poaceae | Shrub | Fl | 1-12 | Common | Fibre | Sharika 187 (DUSH) |
| *Salix tetrasperma* Roxb. | Panijuma | Salicaceae | Tree | Rb | 11-3 | Common | - | Sharika 235 (DUSH) |
| *Schoenoplectus supinus* (L.) Palla | Potpote | Cyperaceae | Herb | Rb | 7-2 | Common | Edible | Sharika 31 (DUSH) |
| *Scoparia dulcis* L. | Bondhoney | Scrophulariaceae | Herb | Rs | 1-12 | Common | Medicinal | Sharika 18 (DUSH) |
| *Senna alata* (L.) Roxb. | Dadmardan | Caesalpiniaceae | Tree | Rs | 8-1 | Common | Medicinal | Sharika 68 (DUSH) |
| *S. sophera* (L.) Roxb. | Kashundi | Caesalpiniaceae | Shrub | Rs | 8-7 | Common | Medicinal | Sharika 125 (DUSH) |
| *S. tora* (L.) Roxb. | Kalkasham | Caesalpiniaceae | Herb | Rs | 7-12 | Common | Medicinal | Sharika 141 (DUSH) |
| *Sesamum indicum* L. | Til | Pedaliaceae | Herb | Fl | 2-9 | Common | Oil | Sharika 231 (DUSH) |
| *Setaria glauca* (L.) P. Beauv. | Kauni | Poaceae | Herb | Rs | 7-7 | Common | Medicinal | Sharika 03 (DUSH) |
| *Sida acuta* Burm. f. | Berela | Malvaceae | Herb | Rs | 7-4 | Common | Medicinal | Sharika 66 (DUSH) |

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| Scientific name | Local name | Family name | Habit | Habitat | Fl. &Fr. | Distribution | Potential uses | Voucher specimen |
|---|---|---|---|---|---|---|---|---|
| *Solanum melongena* L. | Begun | Solanaceae | Herb | Cu | 9-3 | Very common | Vegetable | Sharika 113 (DUSH) |
| *S. nigrum* L. | Tit-begun | Solanaceae | Herb | Cu | 1-12 | Very common | Vegetable | Sharika 15 (DUSH) |
| *S. sisymbrifolium* Lamk. | Kanta begun | Solanaceae | Herb | Rs | 1-12 | Common | Vegetable | Sharika 20 (DUSH) |
| *S. virginianum* L. | Jongla begun | Solanaceae | Herb | Rs | 1-2 | Common | Vegetable | Sharika 115 (DUSH) |
| *Sonchus oleraceus* L. | Titliya | Asteraceae | Herb | Wl | 2-5 | Common | Medicinal | Sharika 04 (DUSH) |
| *Spilanthes calva* DC. | Marhatitiga | Asteraceae | Herb | Rs | 1-12 | Common | Medicinal | Sharika 200 (DUSH) |
| *Spondias pinnata* (L. f.) Kurz | Deshi amra | Anacardiaceae | Tree | Pl | 2-7 | Common | Fruit edible | Sharika 232 (DUSH) |
| *Stephania japonica* (Thunb.) Miers. | Nimuka | Menispermaceae | Climber | Rs | 3-7 | Common | Medicinal | Sharika 132 (DUSH) |
| *Synedrella nodiflora* (L.) Gaertn. | Relanodi | Asteraceae | Herb | Rs | 1-12 | Common | Medicinal | Sharika 86 (DUSH) |
| *Swietenia mahagoni* (L.) Jacq. | Mehgoni | Meliaceae | Tree | Rs | 4-11 | Common | Timber | Sharika 122 (DUSH) |
| *Tabernaemontana divericata* (L.) R. Br. *ex* Roem & Schult. | Togor | Apocynaceae | Shrub | Pl | 5-1 | Common | Ornamental | Sharika 58 (DUSH) |
| *Tamarindus indica* L. | Tentul | Caesalpiniaceae | Tree | Pl | 4-12 | Common | Fruits edible, medicinal | Sharika 139 (DUSH) |
| *Tamarix gallica* L. | Bon-jhau | Tamaricaceae | Shrub | Fl | 3-6 | Common | - | Sharika 236 (DUSH) |
| *Tecoma stans* (L.) H.B.& K. | Shonapati | Bignoniaceae | Shrub | Rs | 5-12 | Common | Timber, medicinal | Sharika 221 (DUSH) |
| *Thespesia populnea* (L.) Sol. *ex* Corr. | Parash pipul | Malvaceae | Tree | Rs | 7-1 | Common | Edible, medicinal | Sharika 205 (DUSH) |
| *Thevetia peruviana* (Pers.) K. Schum. | Holde korobi | Apocynaceae | Shrub | Pl | 1-12 | Common | Fruit edible, medicinal | Sharika 134 (DUSH) |
| *Tinospora cordifolia* (Willd.) Hook. f. | Galuncha | Menispermaceae | Climber | Rs | 1-7 | Common | Medicinal | Sharika 162 (DUSH) |

(Contd.)

| Scientific name | Local name | Family name | Habit | Habitat | Fl. &Fr. | Distribution | Potential uses | Voucher specimen |
|---|---|---|---|---|---|---|---|---|
| *Toona ciliata* J. Roem.* | Toon | Meliaceae | Tree | Rs | 1-6 | Rare | Medicinal, essential oil | Sharika 207 (DUSH) |
| *Trema orientalis* (L.) Bl.* | Jibon | Ulmaceae | Tree | Rs | 12-4 | Rare | Timber | Sharika 95 (DUSH) |
| *Trewia polycarpa* Benth. | Batul | Euphorbiaceae | Tree | Rs | 5-10 | Common | Timber | Sharika 183 (DUSH) |
| *Trichosanthes cucumerina* L. | Bon Patal | Cucurbitaceae | Herb | Cu | 6-10 | Common | Medicinal | Sharika 112 (DUSH) |
| *T. tricuspidata* Lour.* | Makal | Cucurbitaceae | Herb | Fl | 7-12 | Rare | Medicinal | Sharika 135 (DUSH) |
| *Tridax procumbens* L. | Tridara | Asteraceae | Herb | Rs | 1-12 | Very common | Medicinal | Sharika 62 (DUSH) |
| *Triumfetta rhomboidea* Jacq. | Bon-okra | Tiliaceae | Herb | Fl | 8-1 | Common | Medicinal | Sharika 216 (DUSH) |
| *Typha domingensis* (Pars.) Poir. *ex.* Steud* | Hogla | Typhaceae | Herb | Rb | 5-6 | Rare | Medicinal | Sharika 225 (DUSH) |
| *Urena lobata* L. | Bon-okra | Malvaceae | Shrub | Rs | 1-12 | Common | Fibre | Sharika 91 (DUSH) |
| *Vernonia cinerea* (Roxb.) Less. | Choto kukshim | Asteraceae | Herb | Fl | 1-12 | Common | Medicinal | Sharika 116 (DUSH) |
| *Vigna mungo* (L.) Hepper | Mashkalai | Fabaceae | Herb | Cu | 11-1 | Common | Medicinal | Sharika 208 (DUSH) |
| *Vitex negundo* L. | Nishinda | Verbenaceae | Shrub | Fl | 9-2 | Common | Medicinal | Sharika 102 (DUSH) |
| *Xanthium indicum* Koenig | Ghagra | Asteraceae | Herb | Rs | 1-12 | Very common | Leafy vegetable, medicinal | Sharika 48 (DUSH) |
| *Zizipus mauritiana* Lamk. | Kul, Boroi | Rhamnaceae | Shrub | Pl | 9-3 | Very common | Fruits edible | Sharika 201 (DUSH) |
| *Z. oenoplea* (L.) Mil. | Bon-Boroi | Rhamnaceae | Shrub | Vt | 7-12 | Common | Medicinal | Sharika 146 (DUSH) |

*Denotes rare species. Habitat: Rs = Roadside, Pl = Planted, Rb = River bank, Wl = Waste land, Wp = Wet places, A = Aquatic, Fl = Fellow land, Cu = Cultivated, Ch = Char, Vt = Village thickets, Cu = Cultivated, Rf = Rice field, Ll = Low land. The numbers 1, 2, 3, etc. denote the months.

*Medicinal Plants:* The present study has identified 57 medicinal plants used by the local people of Lalpur upazila for their primary healthcare which are used for treatment of over 30 ailments (Table 2).

**Table 2. Medicinal plants used by local people of Lalpur Upazila for primary healthcare.**

| Scientific name | Family name | Local name | Part(s) used | Medicinal uses |
|---|---|---|---|---|
| *Achyranthes aspera* | Amaranthaceae | Apang | Root | Jaundice, Pain |
| *Aegle marmelos* | Rutaceae | Bel | Fruit | Dysentery, Constipation |
| *Ageratum conyzoides* | Asteraceae | Akunti | Root, stem, leaf | Wound, Sores |
| *Albizia lebbeck* | Mimosaceae | Shirish | Bark | Cancer, Bronchitis, Asthma |
| *Alstonia macrophylla* | Apocynaceae | Chaatim | Bark | Chronic diarrhoea |
| *Alternanthera philoxeroides* | Amaranthaceae | Helencha | Whole plant | Constipation, Indigestion |
| *A. sessilis* | Amaranthaceae | Chanchi Shak | Whole plant | Indigestion, Snake bite |
| *Amaranthus spinosus* | Amaranthaceae | Kantanotey | Whole plant | Chest pain |
| *A. viridis* | Amaranthaceae | Noyte shak | Whole plant | Snake-bite |
| *Azadirachta indica* | Meliaceae | Neem | Leaf | Scabies, Menstruation, Diabetes |
| *Blumea lacera* | Asteraceae | Kukurshunga | Flower, leaf | Stomach-ache, Rheumatic fever |
| *Calotropis procera* | Asclepiadaceae | Akand | Leaf, flower, twig | Hernia, Rheumatic pain |
| *Cassia fistula* | Caesalpiniaceae | Sonalu | Seed, leaf, flower | Constipation, Diabetes |
| *Centella asiatica* | Apiaceae | Thankuni | Whole plant | Dysentery, Brain tonic, Fever |
| *Citrus limon* | Rutaceae | Lebu | Fruit | Fever, Appetizer |
| *Clerodendrum viscosum* | Verbanaceae | Bhaat | Leaf, root | Scabies, Diabetes, Rheumatism |
| *Coccinia grandis* | Cucurbitaceae | Telakucha | Leaf | Diabetes |
| *Colocasia esculenta* | Araceae | Kachu | Corm, leaf | Blood purifier, Brain tonic |
| *Commelina benghalensis* | Commelinaceae | Dhol pata | Whole plant | Itching, Urinary burning |
| *Croton bonplandianus* | Euphorbiaceae | Kanchira | Leaf, seed | Eczema |
| *Curcuma longa* | Zingiberaceae | Holud | Rhizome | Blood purifier |
| *Cuscuta reflexa* | Cuscutaceae | Swarna-lata | Stem | Jaundice, Diabetes |
| *Cynodon dactylon* | Poaceae | Durba | Whole plant | Diaphoretic and antipyretic |
| *Cyperus rotundus* | Cyperaceae | Mutha ghas | Root | Dyspepsia, Urinary concretions |
| *Dillenia indica* | Dilleniceae | Chalta | Fruit | Diarrhoea, Dysentery |
| *Eclipta alba* | Asteraceae | Kashoraj | Whole plant | Fever, Leucoderma, Hair tonic |
| *Euphorbia hirta* | Euphorbiaceae | Dudhia | Whole plant | Cough, Bronchitis |

(Contd.)

| Scientific name | Family name | Local name | Part(s) used | Medicinal uses |
|---|---|---|---|---|
| *Ficus benghalensis* | Moraceae | Bot | Bark, leaf | Diabetes, Impotence |
| *F. hispida* | Moraceae | Dumur | Fruit | Tonic |
| *F. religiosa* | Moraceae | Aswathwa | Bark | Skin disease |
| *Glycosmis pentaphylla* | Rutaceae | Datmajon | Leaf, stem | Dysentery, Jaundice, Fever |
| *Hyptis suaveolens* | Lamiaceae | Tokma | Root, leaf | Constipation, Skin disease |
| *Ichnocarpus frutescens* | Apocynaceae | Loi lata | Root, leaf | Fever, Skin disease |
| *Justicia adhatoda* | Acanthaceae | Basak | Root | Diarrhoea |
| *Lannea coromandelica* | Anacardiaceae | Jiga | Bark, leaf | Chicken pox |
| *Leucas aspera* | Lamiaceae | Shetodrone | Whole plant | Arthritic pain |
| *Litsea monopetala* | Lauraceae | Kat menda | Bark | Pain, Silkworm |
| *Ludwigia adscendens* | Onagraceae | Mulsi shak | Whole plant | Dysentery |
| *Mikania cordata* | Asteraceae | Assam lata | Leaf | Cut injury |
| *Momordica charantea* | Cucurbitaceae | Karola | Fruit, leaf | Diabetes, Blood pressure |
| *Neolamarckia cadamba* | Rubiaceae | Kadam | Stem bark, leaf | Body pain |
| *Ocimum tenuiflorum* | Lamiaceae | Tulsi | Leaf | Cold, Cough, Bronchitis |
| *Paederia cruddasiana* | Rubiaceae | Gandabhadali | Leaf | Abdominal pain, diarrheoa |
| *Passiflora foetida* | Passifloraceae | Jhumka lata | Whole plant | Diabetes |
| *Peperomia pellucida* | Piperaceae | Pipul | Whole plant | Asthma, Arthritic pain |
| *Persicaria hydropiper* | Polygonaceae | Bishkatali | Leaf, seed, root | Allergy, Stomach pain |
| *Phyllanthus reticulatus* | Euphorbiaceae | Chitki | Root, stem. bark | Malaria |
| *Rauvolfia serpentina* | Apocynaceae | Swarpagandha | Root, bark, leaf | Hypertension, Mental disorder |
| *Scoparia dulcis* | Scrophulariaceae | Bandhone | Whole plant | Malaria, Diarrhoea |
| *Senna alata* | Caesalpiniaceae | Dadmordon | Leaf | Ringworm, Constipation |
| *Spilanthes calva* | Asteraceae | Surya kannya | Leaf, flower | Toothache |
| *Stephania japonica* | Menispermaceae | Nimuka | Root, leaf | Dysentery, Diarrhoea, Fever |
| *Swietenia mahagoni* | Meliaceae | Mehogoni | Stem bark | Diabetes |
| *Tamarindus indica* | Caesalpiniaceae | Tentul | Fruit, leaf, bark | Hypertension, Tonic, Asthma |
| *Toona ciliata* | Meliaceae | Toon | Bark, flower | Menstrual disorders |
| *Vitex nigundo* | Verbenaceae | Nishinda | Leaf, fruit | Ulcer, Rheumatism, Asthma |
| *Ziziphus mauritiana* | Rhamnaceae | Boroi | Fruit, bark, root | Scabies, Diarrhoea, Fever |

The study reveals that herbs are represented by 118 species (55%), shrubs by 32 species (15%), trees by 50 species (23%) and climbers by 16 species (7%). This pattern of habit groups were the indication of the progressive succession of the vegetation. The study also shows that 113 species are perennial and 103 are annual.

In the study area, the most common homestead species are *Hibiscus rosa-sinensis, Ocimum tenuiflorum, Averrhoa carambola, Swietenia mahagoni* etc. Other commonly found species in the homestead are *Areca catechu, Achyranthes aspera, Alocasia macrorrhizos, Barringtonia acutagula, Calotropis gigantea* and *Clerodendrum viscosum.* Some climbers such as, *Cayratia trifolia, Stephania japonica* etc. grow with the support of homestead trees. *Cuscuta reflexa* observed on the homestead trees as a parasite. Commonly growing roadside plants are *Eucalyptus citriodora, Phyllanthus reticulatus, Glycosmis pentaphylla, Heliotropium indicum, Solanum nigrum, Croton bonplandianum, Leucus aspera, Cassia fistula* etc. The floating macrophytes which are common in the study area include *Pistia stratiotes, Lemna perpusilla, Eichhornia crassipes* etc. Shallow water bodies support the taxa like *Nymphaea nouchali, Ipomoea aquatica,* etc. Of the recorded species from Lalpur Upazila, 158 were commonly found throughout the study area, 39 species were very common, whereas 19 species were found rare. Some of the rare plants in Lalpur Upazila as revealed from the field investigation are *Andrographis paniculata, Averrhoa carambola, A. bilimbi, Bacopa monnieri, Barringtonia acutangula, Bombax insigne, Careya arborea, Dioscorea alata, Lannea coromandelica, Passiflora foetida, Paederia cruddasiana, Toona ciliata, Trema orientalis, Trichosanthes tricuspidata* and *Typha domingensis*. Among them *Andrographis paniculata* and *Bombax insigne* are listed as threatened in the Red List of vascular plants of Bangladesh (Khan *et al*. 2001).

The present study has identified some threats to the angiospermic flora of Lalpur Upazila, *viz*. habitat destruction, industrialization, urbanization and over-exploitation of medicinal plants. A number keystone species including medicinal plants might disappear in near future from the study area due of these threats. Therefore, necessary steps should be undertaken to conserve the plant species along with habitat protection. Some of the important measures to be undertaken to conserve plant diversity include: protection of habitat degradation, preparation of distribution map of the species of the studied area, building public awareness for preservation of plant diversity, conservation of medicinal, rare and threatened species, and documentation of traditional usage of the medicinal plants. In conclusion, a long-term monitoring program on the existing flora of Lalpur Upazila of Natore district along with their conservation through both *ex situ* and *in situ* approaches need to be adopted.

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