

ANGIOSPERM FLORA OF RAMPAHAR RESERVE FOREST UNDER RANGAMATI DISTRICT IN BANGLADESH. I. LILIOPSIDA (MONOCOTS)

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Abstract

A systematic floristic study of Rampahar reserve forest under Rangamati district in Bangladesh has revealed 89 monocot (Liliopsida) taxa belonging to 66 genera under 15 families. Out of these recorded taxa, 73 are herbs, 9 climbers, 3 bamboos, 3 reeds and 1 tree species. The area harbours 11 threatened species of the country. Updated nomenclature with full reference citation, habit and representative specimen have been provided for each species. Well known synonyms and local name(s) have also been given in some cases.

Introduction

Rampahar together with Sitapahar was declared as a first reserve forest within the Chittagong Hill Tracts (CHTs) in 1875 (Anonymous, 1960). The under explored forest area of Rampahar, represents tropical rain forest mainly of evergreen type of vegetation, is situated in Kaptai upazila under Rangamati district. Administratively, the area belongs to Kaptai Forest Range under the management of Rangamati South Forest Division. It lies between 22°26' & 22°38' North and 92°08' & 92°17' East. The hilly area is occupying approximately 648 hectares of natural forest covers.

Rampahar reserve forest is bounded by the river Karnaphuli on the South and by degraded hills and a tribal settlement on the West. Teak (*Tectona grandis*) plantation of Chitmarom Forest Beat lies on the East and North which is being separated by a channel known as '*Baluchhara*'. Geologically, the area belongs to the Pliocene and Miocene epoch of the tertiary period. The configuration of the ground is very irregularly rugged and consists of a series of ridges and valleys running more or less from north to south. The level of valley bottoms ranges from 30 to 90 meters above the sea level and maximum elevation is about 500 m. Soil is mainly yellowish-brown to reddish-brown loams which grade into broken shale or sandstone at a various depth (between 30-120 cm). The valley soil is mainly acid loams and clays subject to seasonal flooding. The humus composition is high but its degree of accumulation varies from place to place depending on topography. Usually more deposition is found on flat land and on the bed of channel (*chhara*) and less on the undulating hills.

The climate of the study area is tropical warm-humid and which is greatly influenced by the monsoon. The average temperature ranges from 19.9°C to 28.3°C and the average annual rain fall is about 2,900 mm (Uddin *et al.*, 1998). About 90% of the total rainfall occurs in the period between June-September, whereas, the months of December to March are particularly without rain. The mean relative humidity is rather high and usually remains between 66-85% throughout the year. During the winter, the perennial springs (*chhara*) and the river Karnaphuli are the source of water supply in the reserve. However, with abundance of rainfall during the rainy season there is no dearth of water for vegetation during that period, which is incidentally the growing season for the plants.

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Over the past few decades, several floristic inventories have been progressed throughout the country. Those had resulted in the compilation of a number of checklists *viz.* Khan and Banu, 1969; Khan *et al.*, 1994; Rahman and Hassan, 1995; Rahman and Uddin, 1997; Uddin *et al.*, 1998; Uddin and Rahman, 1999; Khan and Huq, 2001; Uddin and Hassan, 2004; Uddin and Hassan, 2010. Even though, many areas of the country have been either poorly investigated or remain unexplored till now. Floristic collections are essential for expanding the holdings from those under-represented areas. Recently, the Forest Department of Bangladesh has declared the area as a part of Kaptai National Park and has been taking various initiatives for the conservation and sustainable management of the plant genetic resources of the area. However, no published floristic account has been prepared for the Rampahar area so far. The present study has been undertaken aiming to have an inventory of angiosperm flora of Rampahar Reserve Forest. This floristic inventory will generate baseline information for any conservation and management activity of the area.

Materials and Methods

The present work deals with the monocot (Liliopsida) species of the Rampahar area and is mainly based on plant specimens collected through extensive field survey. The floristic inventory of Rampahar Reserve Forest was done by using area maps and regular field visits, accompanied with the collection of fertile specimens of all available plant species. A total of 19 field trips were made during 2001-2008 and over 2,000 plant specimens were collected. The collected specimens were examined at the Bangladesh National Herbarium (DACB), Dhaka University Salar Khan Herbarium (DUSH) and Bangladesh Forest Research Institute Herbarium (BFRIH). Some difficult specimens were identified during the visits to herbaria at the Royal Botanic Garden Edinburgh (E), the Royal Botanic Gardens Kew (K) and the Central National Herbarium, Kolkata, India (CAL). The specimens have been preserved at the DACB, DUSH and BFRIH. The families have been arranged according to Cronquist's system of classification (Cronquist, 1981). The genera and species under each family have been arranged alphabetically. To keep the paper less voluminous, valid name with original citation of each taxon with only well-known synonyms in few cases, local name (if available), habit and only one representative specimen (RS) number (collected from the study area - Rangamati district, Rampahar, Kaptai) has been provided. The species names have been checked with Hooker (1890-1894, 1897), Prain (1903), Heinig (1925), Raizada (1941), Sinclair (1956), Siddiqui *et al.* (2007) and Ahmed *et al.* (2008).

Taxonomic Enumeration

Family **ARECACEAE** C. H. Schultz-Schultzen (1832).

Wallichia densiflora Mart., Hist. Nat. Palm. 3: 190 (1838). A short stemmed, clustered palm tree.
RS: 2.10.2002, S.N. Uddin N-1788 (DACB).

Family **ARACEAE** A. L. Jussieu (1789).

Aglaonema hookerianum Schott, Bonpland. 7: 30 (1859). Local name: *Horina shak*. A perennial herb. RS: Rangamati dist.; Rampahar, Kaptai, 2.10.2002, S.N. Uddin N-1772 (DACB).

Alocasia navicularis (C. Koch *et* Bouche) C. Koch *et* Bouche in Ind. Sem. Hort. Berol. App. p. 2 (1855). A perennial herb. RS: 3.10.2002, S.N. Uddin N-1884 (DACB).

Amorphophallus paeoniifolius (Dennst.) Nicolson var. **campanulatus** (Decne.) Sivadasan, Taxon 32: 130 (1983). Local name: *Ol kachu*. A perennial, cormous herb. RS: 16.6.2001, S.N. Uddin N-1021 (DACB).

Colocasia oresbia A. Hay, Sandakania 7: 31-48 (1996). A perennial, rhizomatous herb. RS: 7.7.2003, Hosne Ara & S.N. Uddin H-359 (DACB).

Homalomena aromatica (Roxb. ex Sims) Schott, Schott & Endl., Melet. Bot.: 20. (1832). Local names: *Barodaga, Gandubi kachu.* A perennial, rhizomatous herb. RS: 3.9.2002, S.N. Uddin N-1745 (DACB).

Scindapsus officinalis (Roxb.) Schott, Schott & Endl. Melet. Bot. 1: 21 (1832). Local name: *Gajipipul.* A perennial climber. RS: 3.10.2002, S.N. Uddin N-1871 (DACB).

Steudnera colocasioides Hook. f., Fl. Brit. India 6: 520 (1893). *Steudnera virosa* Prain (1903). Local names: *Bish kachu, Ek dajja kachu.* A perennial herb. RS: 16.6.2001, S.N. Uddin N-997 (DACB).

Family COMMELINACEAE R. Brown (1810).

Commelina erecta L., Sp. Pl.: 41(1753). Local name: *Jata kanchira.* A perennial, erect herb. RS: 30.9.2002, S.N. Uddin N-1622 (DACB).

Commelina sikkimensis C.B. Clarke, Comm. et Cyrt. Beng.: 16, t. 6 (1874). Local name: *Batbaithia shag.* An annual, creeping herb. RS: 30.9.2002, S.N. Uddin N-1612 (DACB).

Cyanotis cristata (L.) D. Don., Prodr. Fl. Nep.: 46 (1825). An annual, creeping herb. RS: 1.10.2002, S.N. Uddin N-1749 (DACB).

Floscopia scandens Lour., Fl. Cochin.: 193 (1790). A perennial herb. RS: 30.9.2002, S.N. Uddin N-1701 (DACB).

Murdannia elata (Vahl) Brück in Engl. & Prantl, Nat. Pfanzenfam. ed. 2, 15a: 173 (1930). An annual, erect herb. RS: 2.10.2002, S.N. Uddin N-1777 (DACB).

Murdannia nudiflora (L.) Brenan, Kew Bull.: 189 (1952). Local names: *Kanduli, Kureli.* A perennial, erect herb. RS: 30.9.2002, S.N. Uddin N-1623 (DACB).

Family CYPERACEAE A. L. de Jussien (1789).

Carex continua C.B. Clarke in Hook. f., Fl. Brit. India 6: 717 (1894). A perennial, rhizomatous herb. RS: 30.9.2002, S.N. Uddin N-1677 (DACB).

Carex indica L., Mant. 2: 574 (1771). A perennial, rhizomatous herb. RS: 28.5.2003, S.N. Uddin N-1888 (DACB).

Cyperus cuspidatus Kunth in Humb., Bonpl. & Kunth, Nov. Gen. & Sp. Pl. 1: 204 (1815). An annual herb. RS: 30.9.2002, S.N. Uddin N-1669 (DACB).

Cyperus cyperoides (L.) Kuntze, Rev. Gen. Pl. 3 (2): 333 (1898). Local names: *Bara guthubi, Kucha, Kusha.* A perennial, rhizomatous herb. RS: 2.10.2002, S.N. Uddin N-1758 (DACB).

Cyperus laxus Lam. var. *laxus* Simpson & Koyama, Fl. Thai. 6 (4): 368 (1998). *Cyperus diffusus* Vahl (1806). A perennial herb. RS: 30.9.2002, S.N. Uddin N-1679 (DACB).

Cyperus platystylis R. Br., Prod. Fl. Nov. Holl.: 214 (1810). A perennial, rhizomatous herb. RS: 29.5.2003, S.N. Uddin N-1938 (DACB).

Cyperus rotundus L., Sp. Pl.: 45 (1753). Local names: *Mutha, Sadakufi.* A perennial, stoloniferous herb. RS: 2.5.2008, S.N. Uddin N-2926 (DACB).

Fimbristylis dichotoma (L.) Vahl subsp. **dichotoma** D. A. Simpson & T. Koyama in T. Santisuk & K. Larsen, Fl. Thailand 6 (4): 321 (1998). Local name: *Bara nirbishi.* A perennial, herb. RS: 30.9. 2002, S.N. Uddin N-1676 (DACB).

Kyllinga nemoralis (J. R. Forst. & G. Forst.) Dandy ex Hutchins. & Dalziel, Fl. W. Trop. Africa 2: 486 (1936). A perennial, rhizomatous herb. RS: 30.9.2002, S.N. Uddin N-1675 (DACB).

Scleria levis Retz., Obs. Bot. 4: 13 (1786). A perennial, rhizomatous herb. RS: 30.9.2002, S.N. Uddin N-1678 (DACB).

Scleria terrestris (L.) Fassett, Rhodora 26: 159 (1924). A perennial, rhizomatous herb. RS: 3.6.2002, S.N. Uddin N-1672 (DACB).

Family **POACEAE** Barnhart (1895).

Bambusa polymorpha Munro, Trans. Linn. Soc. 26: 98 (1868). Local names: *Burma bans*, *Pharua bans*. A tufted bamboo. RS: 8.6.2002, S.N. Uddin N-1345 (DACB).

Bambusa tulda Roxb., Fl. Ind. 2: 193 (1832). Local names: *Mitrunga bans*, *Talls*, *Toru*. A tufted bamboo. RS: 8.6.2002, S.N. Uddin N-1355 (DACB).

Centotheca lappacea (L.) Desv., Nouv. Bull. Soc. Philom. Paris 2: 189 (1810). A perennial, tufted grass. RS: 15.12.2004, S.N. Uddin N-2558 (DACB).

Chrysopogon aciculatus (Retz.) Trin., Fund. Agrost. 188 (1820). Local names: *Badaiya*, *Lengra*, *Premkanta*. A perennial, creeping grass. RS: 3.10.2002, S.N. Uddin N-1823 (DACB).

Cynodon dactylon (L.) Pers., Syn. Pl. 1: 85 (1805). Local names: *Dubba har*, *Durba ghas*. A perennial, stoloniferous grass. RS: 8.6.2002, S.N. Uddin N-1315 (DACB).

Cyrtococcum accrescent (Trin.) Stapf in Hook. Ic. Pl. t. 3096 (1922). A perennial, scrambling grass. RS: 1.10.2002, S.N. Uddin N-1726 (DACB).

Cyrtococcum oxyphyllum (Hochst. ex Steud.) Stapf in Hook. Ic. Pl. t. 3096 (1922). A perennial, creeping grass. RS: 30.9.2002, S.N. Uddin N-1682 (DACB).

Dichanthium annulatum (Forssk.) Stapf in Prain, Fl. Trop. Afr. 9: 178 (1917). Local name: *Loari*. A perennial grass. RS: 2.5.2008, S.N. Uddin N-2920 (DACB).

Digitaria sanguinalis (L.) Scop. Fl. Carn., ed. 2, 1: 52 (1772). Local name: *Makunjali*. An annual grass. RS: 2.5.2008, S.N. Uddin N-2946 (DACB).

Eragrostis unioloides (Retz.) Nees ex Steud., Syn. Pl. Glum. 1: 264 (1854). A tufted, annual grass. RS: 8.6.2002, S.N. Uddin N-1341 (DACB).

Hackelochloa granularis (L.) O. Kuntze, Rev. Gen. Pl. 2: 776 (1891). A perennial grass. RS: 19.10.2003, S.N. Uddin N-2129 (DACB).

Imperata cylindrica (L.) Beauv. var. **major** (Nees) C. E. Hubb. ex Hubb. & Vaughan, Grass. Maur. 96 (1940). Local names: *Chhan*, *Chau*. A perennial, tufted grass. RS: 8.6.2002, S.N. Uddin N-1352 (DACB).

Lophatherum gracile Brongn. in Duperry. Voy. Monde 50, t. 8 (1831). A perennial grass. RS: 30.9.2002, S.N. Uddin N-1681 (DACB).

Melocanna baccifera (Roxb.) Kurz, Prelim. Rep. For. Veg. Pegu, App. B.: 94 (1975). Local names: *Bajali*, *Muli*, *Paiya*. A clumped bamboo. RS: 30.9.2002, S.N. Uddin N-1581 (DACB).

Mnesithea laevis (Retz.) Kunth, Rév. Gram. 1: 154 (1829). A perennial grass. RS: 19.10.2003, S.N. Uddin N-2131 (DACB).

Panicum auritum Presl ex Ness, Agrost. Bras. 176 (1829). A perennial grass. RS: 2.5.2008, S.N. Uddin N-2923 (DACB).

Panicum repens L., Sp. Pl. ed. 2, 87 (1762). Local names: *Baranda*, *Dhani ghas*. A stoloniferous, perennial grass. RS: 30.9.2002, S.N. Uddin N-1680 (DACB).

Paspalum scrobiculatum L., Mant. Pl. 1: 29 (1767). Local names: *Goicha*, *Kodoa dhan*. A perennial, tufted grass. RS: 2.10.2002, S.N. Uddin N-1757 (DACB).

Phragmites karka (Retz.) Trin. ex Steud., Nom. Bot., ed. 2, 2: 324 (1841). Local names: *Dharma*, *Nal*. A perennial reed. RS: 2.5.2008, S.N. Uddin N-2914 (DACB).

Pogonatherum crinitum (Thunb.) Kunth, Enum. Pl. 1: 478 (1833). A tufted, perennial grass. RS: 15.12.2004, S.N. Uddin N-2563 (DACB).

Rottboellia cochinchinensis (Lour.) W.D. Clayton, Kew Bull. 35(4): 817-818 (1981). Local name: *Bara swati*. A tall, annual grass. RS: 4.10.2002, S.N. Uddin N-1830 (DACB).

Saccharum arundinaceum Retz., Obs. Bot. 4: 14 (1786). Local name: *Teng*. A perennial reed grass. RS: 16.12.2004, S.N. Uddin N-2569 (DACB).

Saccharum spontaneum L., Mant. Pl. 2: 183 (1771). Local names: *Kaichha*, *Kash*, *Khagra*. A perennial grass. RS: 30.9.2002, S.N. Uddin N-1567 (DACB).

Sacciolepis myosuroides (R. Br.) A. Camus in Lecomte, Fl. Indo-Chine 7: 460 (1922). A tufted, annual grass. RS: 2.5.2008, S.N. Uddin N-2922 (DACB).

Setaria glauca (L.) P. Beauv. Ess. Agrost. 51: 169, 178 (1812). Local names: *Banaspati ghas*, *Kauni*. A perennial grass. RS: 3.10.2002, S.N. Uddin N-1806 (DACB).

Themeda villosa (Poir.) A. Camus in Lecomte, Fl. Gen. de Indo-Chine 7: 364 (1922). A tufted perennial grass. RS: 17.12.2004, S.N. Uddin N-2582 (DACB).

Thysanolaena maxima (Roxb.) O. Ktze., Rev. Gen. Pl. 2: 794 (1891). Local name: *Jharu phul*. A tufted, perennial reed grass. RS: 19.10.2003, S.N. Uddin N-2132 (DACB).

Family MUSACEAE A. L. de Jussieu (1789).

Musa ornata Roxb., Fl. Ind. 1: 666 (1832). *Musa rosacea* Jacq. (1804). Local names: *Pahari kala*, *Ram kala*. A perennial, tree like herb. RS: 8.6.2002, S.N. Uddin N-1407 (DACB).

Family ZINGIBERACEAE Lindley (1835).

Alpinia calcarata (Haworth) Rosc., Trans. Linn. Soc. 8: 347 (1807). Local name: *Deshi chhotot elachi*. A perennial, rhizomatous herb. RS: 3.4.2002, S.N. Uddin N-1616 (DACB).

Alpinia nigra (Gaertn.) Burtt., Notes Roy. Bot. Gard. Edinb. 35: 213 (1977). *Alpinia allughas* (Retz.) Rosc. (1807). Local names: *Tara*, *Taruko*. A perennial, rhizomatous herb. RS: 30.9.2002, S.N. Uddin N-1547 (DACB).

Amomum aromaticum Roxb., Fl. Ind. 1:45 (1820). A perennial, rhizomatous herb. RS: 30.9.2002, S.N. Uddin N-1689 (DACB).

Amomum subulatum Roxb., Pl. Corom. 3: 75 (1820). A perennial, rhizomatous herb. RS: 16.10.2003, S.N. Uddin N-2049 (DACB).

Boesenbergia longiflora O. Kuntze, Rev. Gen. Pl.: 685 (1891). A small, perennial, rhizomatous herb. RS: 30.9.2002, S.N. Uddin N-1675 (DACB).

Curcuma longa L., Sp. Pl. 1:2 (1753). Local names: *Halud*, *Haldi*. A perennial, rhizomatous herb. RS: 19.10.2003, S.N. Uddin N-2139 (DACB).

Curcuma zedoaria (Christm.) Rosc. in Trans Linn. Soc. London 8: 354 (1807). Local names: *Failla*, *Kachura*, *Phalga*, *Shoti*. A perennial, rhizomatous herb. RS: 30.4.2002, S.N. Uddin N-1687 (DACB).

Etlingera linguiformis (Roxb.) R. M. Smith, Notes R. B. G. Edinb. 43(2): 246 (1986). *Amomum linguiforme* (Roxb.) Baker (1892). A perennial, rhizomatous herb. RS: 30.9.2002, S.N. Uddin N-1687 (DACB).

Globba multiflora Wall. ex Baker in Hook. f., Fl. Brit. India 6: 202 (1890). A perennial herb. RS: 30.9.2002, S.N. Uddin N-1620 (DACB).

Zingiber rubens Roxb., Asiat. Res. 11: 348 (1810). A perennial, rhizomatous herb. RS: 30.9.2002, S.N. Uddin N-1481 (DACB).

Family COSTACEAE Nakai (1941).

Costus speciosus (Koenig) Smith, Trans. Linn. Soc. London 1: 249 (1791). Local names: *Bandugi, Keumul, Kura, Kushtha*. A perennial, rhizomatous herb. RS: 30.9.2002, S.N. Uddin N-1686 (DACB).

Family MARANTACEAE Peterson (1888).

Phrynium imbricatum Roxb., Fl. Ind. 1: 6 (1820). Local name: *Pituli pata*. A perennial herb. RS: 1.10.2002, S.N. Uddin N-1728 (DACB).

Family HAEMODORACEAE R. Brown (1810).

Peliosanthes teta Andr., Bot. Repos. 10. t. 605 (1810). Local name: *Napigach*. A scapigerous, perennial herb. RS: 30.9.2002, S.N. Uddin N-1655 (DACB).

Family LILIACEAE A. L. de Jussieu (1789).

Molineria recurvata (Dryand.) Herbert, Amaryl.: 84 (1834). *Curculigo recurvata* Dryand. (1811). Local names: *Bidri pata, Meloni, Satipata*. A tuberous, perennial herb. RS: 30.9.2002, S.N. Uddin N-1688 (DACB).

Family TACCACEAE Dumortier (1829).

Tacca integrifolia Ker-Gawl., Bot. Mag. 35: t. 1488 (1912). Local name: *Mati munda*. A perennial, rhizomatous herb. RS: 2.10.2002, S.N. Uddin N-1771 (DACB).

Family SMILACACEAE Ventenat (1799).

Smilax perfoliata Lour., Fl. Cochinch.: 622 (1790). *Smilax prolixa* Roxb. (1832). Local name: *Choto kumari lata*. A perennial, armed climber. RS: 18.6.2004, S.N. Uddin N-2479 (DACB).

Family DIOSCOREACEAE R. Brown (1810).

Dioscorea aculeata L., Sp. Pl.: 1033 (1753). Local name: *Gointa alu*. An annual twiner. RS: 15.12.2004, S.N. Uddin N-2542 (DACB).

Dioscorea bulbifera var. **bulbifera** L., Sp. Pl.: 1033 (1753). Local names: *Pagla alu, Rata alu, Rath pagla alu*. An annual, tuberous climber. RS: 1.10.2002, S.N. Uddin N-1753 (DACB).

Dioscorea glabra Roxb., Fl. Ind. 3: 804 (1832). Local names: *Shora gainta alu, Sora alu*. An annual, tuberous climber. RS: 1.10.2002, S.N. Uddin N-1708 (DACB).

Dioscorea hamiltonii Hook. f., Fl. Brit. India 6: 295 (1892). Local name: *Thakan budo*. An annual, tuberous climber. RS: 30.12.2002, S.N. Uddin N-1754 (DACB).

Dioscorea opositifolia L., Sp. Pl.: 1033 (1753). An annual, tuberous climber. RS: 19.10.2003, S.N. Uddin N-2137 (DACB).

Dioscorea pentaphylla L., Sp. Pl.: 1032 (1753). Local names: *Jum alu, Kanta alu*. An annual, tuberous climber. RS: 17.10.2003, S.N. Uddin N-2098 (DACB).

Dioscorea pubera Blume, Enum. Pl. Jav. 1: 21 (1827). Local names: *Kukur alu, Kakur alu*. An annual, tuberous herb. RS: 30.9.2002, S.N. Uddin N-1642 (DACB).

Family ORCHIDACEAE A. L. de Jussieu (1789).

Acampe ochracea (Lindl.) Hochr., Bull. N. Y. Bot. Gar. 6: 270 (1910). A perennial epiphyte. RS: 29.5.2003, S.N. Uddin N-1945 (DACB).

Acampe papillosa (Lindl) Lindl., Fol. Orch.: 2 (1853). Local name: *Kandori phul*. A perennial epiphyte. RS: 27.5.2003, S.N. Uddin N-1836 (DACB).

Aerides odorata Lour., Fl. Cochinch. 2: 525 (1790). A perennial epiphyte. RS: 1.10.2002, S.N. Uddin N-1748 (DACB).

Bulbophyllum viridiflorum (Hk. f.) Schltr. in Orchids 4: 108 (1910). A perennial, epiphytic herb. RS: 2.10.2002, S.N. Uddin N-1796 (DACB).

Cymbidium aloifolium (L.) Sw., Nov. Act. Soc. Upsal. 6: 73 (1799). Local name: *Churi*. A perennial, tufted epiphyte. RS: 29.5.2003, S.N. Uddin N-1944 (DACB).

Dendrobium aphyllum (Roxb.) C.E.C. Fischer in Gamble, Fl. Pres. Madras 3: 1416. (1928). *Dendrobium pierardi* Roxb. (1832). Local name: *Fasia mach*. A perennial epiphyte. RS: 20.10.2003, S.N. Uddin N-2153 (DACB).

Eria tomentosa (Koen.) Hook. f., Fl. Brit. India 5: 803 (1890). A perennial epiphyte. RS: 16.10.2003, S.N. Uddin N-2038 (DACB).

Nervilia aragoana Gaud. in Freyc., Voy. Bot.: 422, t. 35 (1826). An annual, terrestrial herb. RS: 10.6.2002, S.N. Uddin N-1308 (DACB).

Nervilia juliana (Roxb.) Schltr., Bot. Jahrb. Syst. 45: 402 (1911). An annual, terrestrial herb. RS: 2.10.2002, S.N. Uddin N-1773 (DACB).

Oberonia rufilabris Lindl., Sert. Orch.: t. 8 A (1838). An annual epiphyte. RS: 3.10.2002, S.N. Uddin N-1812 (DACB).

Papilionanthe teres (Roxb.) Schltr., Orchid 9: 78 (1915). A perennial, epiphytic, woody herb. RS: 30.5.2003, S.N. Uddin N-1956 (DACB).

Peristylus goodyeroides (D. Don) Lindl., Gen. Sp. Orch. Pl.: 299 (1835). *Habenaria goodyeroides* D. Don (1825). An annual, terrestrial, tuberous herb. RS: 16.6.2001, S.N. Uddin N-1011 (DACB).

Vanda tessellata (Roxb.) Hook. ex G. Don. in Loud., Hort. Brit. 372 (1830). A perennial epiphyte. RS: 18.12.2004, S.N. Uddin N-2620 (DACB).

Discussion

A total of 89 taxa of monocot (Liliopsida) under 66 genera and 15 families have been recorded for the Rampahar Reserve Forest. The study has revealed that only nine species are epiphytes and the remaining terrestrial. On the other hand, the number of perennial and annual species are 72 and 17, respectively. The study has also found that Poaceae is the largest family with 27 species followed by Orchidaceae (13 species), Cyperaceae (11 species) and Zingiberaceae (10 species). Eight families (*viz.* Arecaceae, Musaceae, Costaceae, Marantaceae, Haemodoraceae, Liliaceae, Taccaceae and Smilacaceae) are represented each by a single species. The genus *Dioscorea* appears as the largest genus represented by seven species.

The area possesses five red listed plant species of Bangladesh, *viz.* *Aglaonema hookerianum* Schott., *Amomum aromaticum* Roxb., *Cymbidium aloifolium* (L.) Sw., *Globba multiflora* Wall., and *Phrynum imbricatum* Roxb. as recorded by Khan *et al.* (2001). Besides those species, another six species i.e. *Alocasia navicularis* C. Koch., *Boesenbergia longiflora* O. Kuntze, *Colocasia oresbia* A. Hay, *Nervilia aragoana* Gaud., *Nervilia juliana* (Roxb.) Schltr. and *Oberonia rufilabris* Lindl. have been identified as threatened species for Bangladesh (Siddiqui *et al.*, 2007; Ahmed *et al.*, 2008). From this analysis, it can be said that out of 89 taxa occurred in the study area 11 species are threatened. However, this figure may be much higher in near future if no immediate conservation action is taken.

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