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ADDITIONS TO THE ANGIOSPERM FLORA IN THE SITAPAHAR RESERVE FOREST OF KAPTAI, RANGAMATI, BANGLADESH

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Sitapahar Reserve Forest is one of the botanically richest areas of Bangladesh. Sitapahar including Rampahar forming a single forest beat has been declared reserve forest in 1875. It is situated in Kaptai upazila under Rangamati district and is about 60 km away from Chittagong city (Anonymous, 1970). Sitapahar Reserve Forest is situated approximately between 22º26′N and 22º38′N latitude and 92º08′E and 92º17′E longitude. This tropical rain forest occupying approximately 922 acres; the highest peak being about 460 m above the sea level (Uddin *et al.*, 1998). The under explored hilly forest area represents a rain forest mainly of semi-evergreen type of vegetation at Kaptai Forest Range under the administration of the South Forest Division, Chittagong Hill Tracts. Though the area is very rich in species diversity but a comprehensive floristic study of the area is still lacking. Heinig (1925) listed 45 taxa from the Sitapahar. Later Uddin *et al.* (1998) recorded 332 species from the area, of which 248 species belong to Magnoliopsida (Dicotyledons) and 84 to Liliopsida (Monocotyledons). This natural forest is under enormous and persistent threats mainly due to different anthropogenic activities. As a result, a number of economically important species as well as germplasm stocks have become endangered or threatened and perhaps extinct of a few. Since Uddin *et al*. (1998) there has been no comprehensive plant exploration survey in Sitapahar. Therefore, the present work had been undertaken and added 43 taxa under 42 genera belonging to 24 families to the previous accounts of the study area.

The reserve forest has been explored and plant specimens have been collected from the area through repeated extensive explorations during 2010-2011. The identification of specimens has been made with consultation of different Floras and relevant literature e.g. Hooker (1872-1897), Prain (1903), Uddin *et al*. (1998), Siddiqui *et al.* (2007) and Ahmed *et al.* (2008-2009), and consulting properly identified herbarium specimens lodged at the Chittagong University Herbarium (HCU), Bangladesh Forest Research Institute Herbarium (BFRIH), Dhaka University Salar Khan Herbarium (DUSH) and Bangladesh National Herbarium (DACB).

The additional occurrence of 43 angiosperm taxa is presented alphabetically along with their family names, habit and voucher specimens in Table 1. Genera reported for the first time from the study area are indicated with asterisk (*) marks. All collected specimens have been lodged at HCU.

Among the recorded taxa Magnoliopsida (Dicotyledons) is represented by 38 species under 37 genera and 21 families, whereas Liliopsida (Monocotyledons) consists of 5 taxa under 5 genera and 3 families. It is an extend species diversity to the area, exhibits different life forms e.g. 18 herbs, 8 shrubs, 11 climbers and 6 trees. Two families, Apiaceae and Liliaceae, and 21 genera have been reported here for the first time from the area. Populations of four species namely, *Byttneria aspera*, *Phlogacanthus curviflorus*, *Sterculia balanghas* and *Syzygium oblatum* have been determined to be rarely distributed to the area and facing severe threats at different degrees.

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Table 1. Additional taxa to the Sita Pahar reserve forest.

Sl.	Taxa	Family	Habit	Voucher
	Magnoliopsida			
1	*Aglaia perviridis* Hiern	Meliaceae	Tree	H 22
2	**Aidia oppositifolia* (Roxb.) Rahman & Das	Rubiaceae	Tree	H 212
3	*Alternanthera philoxeroides* (Mart.) Griseb.	Amaranthaceae	Herb	H 130
4	*Byttneria aspera* Colebr. *ex* Wall.	Sterculiaceae	Climber	H 125
5	**Centella asiatica* (L.) Urban	Apiaceae	Herb	H 36
6	**Cissampelos pareira* L.	Menispermaceae	Climber	H 126
7	*Cissus javana* DC.	Vitaceae	Climber	H 253
8	**Codariocalyx gyroides* (Roxb. *ex* Link) Hassk.	Fabaceae	Shrub	H 252
9	*Combretum griffithii* Heurck & Muell.-Arg.	Combretaceae	Climber	H 220
10	**Crassocephalum crepidioides* (Benth.) S. Moore	Asteraceae	Herb	H 105
11	**Euphorbia thymifolia* L.	Euphorbiaceae	Herb	H 139
12	*Flemingia involucrata* Benth.	Fabaceae	Shrub	H 136
13	**Hygrophila polysperma* (Roxb.) T. Anders.	Acanthaceae	Herb	H 01
14	**Ipomoea mauritiana* Jacq.	Convolvulaceae	Climber	H 260
15	*I. pes-tigridis* L.	Convolvulaceae	Climber	H 87
16	**Justicia japonica* Thunb.	Acanthaceae	Herb	H 66
17	*Lepisanthes senegalensis* (Poir.) Leenh.	Sapindaceae	Shrub	H 17
18	**Limnophila indica* (L.) Druce	Scrophulariaceae	Herb	H 90
19	*Lindernia crustacea* (L.) F. Muell	Scrophulariaceae	Herb	H 77
20	*Macaranga peltata* (Roxb.) Muell.-Arg.	Euphorbiaceae	Tree	H 51
21	**Macrosolen cochinchinensis* (Lour.) Van Tiegh.	Loranthaceae	Epiphyte	H 123
22	**Mecardonia procumbens* (Mill.) Small	Scrophulariaceae	Herb	H 76
23	*Merremia umbellata* (L.) Hallier f.	Convolvulaceae	Climber	H 63
24	*Millettia pachycarpa* Benth.	Fabaceae	Climber	H 101
25	**Mitracarpus hirtus* (L.) DC.	Rubiaceae	Herb	H 194
26	*Ophiorrhiza mungos* L.	Rubiaceae	Herb	H 213
27	*Phlogacanthus curviflorus* Nees	Acanthaceae	Shrub	H 74
28	**Physalis angulata* L.	Solanaceae	Herb	H 108
29	*Polygonum praetermissum* Hook. f.	Polygonaceae	Herb	H 02
30	*Solanum americanum* Mill.	Solanaceae	Herb	H 71
31	**Sterculia balanghas* L.	Sterculiaceae	Tree	H 152
32	**Synedrella nodiflora* (L.) Gaertn.	Asteraceae	Herb	H 242
33	*Syzygium oblatum* (Roxb.) Wall. *ex* Cowan & Cowan	Myrtaceae	Tree	H 97
34	*Teramnus labialis* (L. f.) Spreng.	Fabaceae	Climber	H 88
35	*Tetrastigma serrulatum* (Roxb.) Planch.	Vitaceae	Climber	H 111
36	**Trichosanthes tricuspidata* Lour.	Cucurbitaceae	Climber	H 216
37	*Vitex peduncularis* Wall. *ex* Schauer	Verbenaceae	Tree	H 143
38	**Vitis heyneana* Roem. & Schult.	Vitaceae	Climber	H 256
	Liliopsida			
39	**Crinum viviparum* (Lam.) R. Ansari & V. J. Nair	Liliaceae	Herb	H 128
40	*Cyrtococcum patens* var. *latifolium* (Honda) Ohwi	Poaceae	Herb	H 41
41	**Didymosperma gracilis* Hook. f.	Arecaceae	Tree	H 62
42	*Saccharum longisetosum* (Anders.) Narayan. *ex* Bor	Poaceae	Herb	H 67
43	**Sacciolepis myosuroides* (R. Br.) A. Camus	Poaceae	Herb	H 06

The Sitapahar reserve forest is floristically diverse and rich. Due to many anthropogenic activities biodiversity of the forest is in severe threat. Therefore, the following recommendations should be adopted for the sake of better management of the forest and biodiversity: i. natural habitats of biodiversity should be maintained; ii. conservation priorities should be given to the rare, threatened and endangered species; iii. mapping of threatened plants should be prepared to facilitate exact location in the forest; iv. public awareness should be created towards sustainable uses of the biodiversity, particularly the medicinal plants; v. accentuate the monitoring of the conservation activities; vi. in severe cases, both *in situ* and *ex situ* conservation measures for particular species may be applied for replicating the population.

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