

Common in the marshes, swamps and in muddy wet meadows. Harwan AMK 4015; Ganderbal AMK 3745.

Distribution. Europe, Asia minor, Himalayas.

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36. A NOTE ON THE OCCURRENCE OF A FEW UNCOMMON PLANTS IN W. BENGAL

INTRODUCTION

While collections of economic plants and plant-products were made from western Duars of Jalpaiguri district (W. Bengal) during the month of April-May and November, 1981, we could collect a few uncommon rare plant species from the plains of North Bengal. A perusal of available literature and herbarium specimens in the herbaria (CAL & BSIS) revealed that these taxa sporadically grow in W. Bengal and in the recent past their occurrence in the locality has not been reported. So, we are trying to draw the attention of Botanists for their immediate conservation before the concerned taxa are eliminated from the flora of W. Bengal. The plants are described here with correct nomenclature, diagno-

stic characters and field data. The herbarium specimens are deposited in the economic plants herbarium of Industrial Section (BSIS), Botanical Survey of India, Calcutta.

ENUMERATION

CUCURBITACEAE

Hodgsonia macrocarpa (Bl.) Cogn. in DC. Monogr. Phan. 3 (1881) 349; Hara, H. Fl. E. Himal. (1966) 323. *H. heteroclita* Hook. f. and Thom., Clarke in Hook. f. Fl. Brit. India 2 (1879) 606; Chakravarty, Ind. Journ. Agric. Sc. 16 (1946) 15, Monogr. on Indian Cucurbitaceae (1959) 27. *Trichosanthes macrocarpa* Bl. Bijdr. (1826) 935.

Large climber; stem robust, angular, glabrous. Leaves broad, 3-5 lobed, upper surface bright green and lower light green, both surfaces glabrous, base truncate or emarginate, petiole robust, striate, glabrous or puberulous, 5-8 cm. long. Tendril robust, glabrous, usually bifid. Male peduncle generally short, thick, striate, glabrous or puberulous, 15-30 cm. long; pedicels short and thick; bracts fleshy oblong-lanceolate, 0.5-1 cm. long. Calyx tube yellowish, glabrous, 8-10 cm. long, 7-9 mm. broad. Corolla yellow outside, white inside; lobes 3-nerved, 5 cm. long, fimbriate; fringes upto 15 cm. long.

Distribution. E. himalaya (Sikkim), Assam, Burma, Malaysia and S. W. China.

Chakravarty (1959) has mentioned its occurrence in Darjeeling citing only one herbarium specimen of Anderson 555 (CAL) whereas Hara (1966) has only reported its occurrence from two places (Sikkim) of E. himalaya. Chakravarty (1959) also has cited other two herbarium specimens of Lister S. N. (CAL) and Gamble 7786 (Kew) collected from Rangamati and Kamalasene of Chittagong hill tract

but the area is now in Bangladesh. So, it may be concluded that the taxon is very rare in W. Bengal so that it could not be collected by other Botanists until the recent collections by us from the plains of West Bengal.

Specimens examined — H. B. C. 473, March 1932 (CAL); K. Biswas 4928, Latherai (Tippera) 1941 (CAL); V. Narayanaswami and party 2325, 21 miles from Rajabhatkhawa (Jalpaiguri) (CAL); S. N. D. and S. C. Roy 3610, Titi-forest (Jalpaiguri), 23.4.1981 (BSIS).

Gomphogyne cissiformis Griff. Pl. Cantor. (1837) 26 in adnot. t. 4; Cogn. in DC. Monogr. Phan. 3 (1881) 924, in Engler's Das Pflanzenr. 4. 275. 1 (1916) 38; Clarke in Hook. f. Fl. Brit. India 2 (1879) 632; Chakravarty, Monogr. Indian Cucur. (1959) 184-186; Hara, H. Fl. E. Himal. (1966) 322-323.

Small slender and scandent herb, glabrous or slightly puberulous especially at the nodes. Leaves petiole slender, glabrous, 3-6 cm. long; lamina finely membranous, upper surface bright green, lower dull green, both surfaces glabrous and smooth; base narrow, margin crenate-dentate; teeth subround, mucronate; middle leaflet 4-6 cm. long, 1-2 cm. broad; lateral leaflets shorter. Tendril filiform, elongate, glabrous. Male racemes simple or branched; main rachis slender, flexuose, glabrous, 10-30 cm. long or longer, pedicels capillary, often fasciculate, flexuose, glabrous, 1-3 mm. long; base minutely bracteolate. Sepals narrow, acute, 1-1.5 mm. long. Petals glabrous, trinerved; margin entire or obscurely denticulate, 2.5-3 mm. long, about 1 mm. broad.

Distribution. Himalaya (Garhwal to Sikkim), Malaya, Indochina, S. W. China and Philippines.

Cowan and Cowan (1929) have not mentioned its occurrence in North Bengal. Chakravarty (1959) has referred only one herbarium specimen of Gamble 8522 (CAL) collected

from Darjeeling (7000 ft.) in the range of E. Himalaya, whereas Hara (1966) has collected the plant from Nepal only. The authors have also noted with great interest that the occurrence of this plant in West Bengal is very rare and after several decades they have collected the plant from the plains of W. Bengal for the first time. Specimen examined — B. B. Osmastre (S. N.), Lepchajagat (7000 ft.), Darjeeling, 1903 (CAL); S.N.D. & S.C.R. 3558 (♂), on way to Gaidham (Seurani forest), Jalpaiguri, 20.4.1981 (BSIS).

VERBENACEAE

Clerodendron wallichii Merrill in Journ. Arn. Arb. 33 (1952) 220; Hara, H. Fl. E. Himal. (1966) 269. *C. nutans* (non Jack) Wall. ex D. Don, Prodr. Fl. Nepal (1825) 103; Prain, D.B.P. 2 (1903) 623; Hook. f. Fl. Brit. India 4 (1885) 591.

A tall shrub, glabrous. Leaves 20-16 cm. long, 3-5 cm. broad, narrowly obovate or lanceolate, subentire, much acuminate; base attenuate; petiole short. Inflorescence panicle, very lax, few flowered, bracteate; bracts filiform. Calyx green, becomes red in fruit. Corolla white or light violet; tube 1.28 cm.; lobes 1.25 cm., obovate. Drupe succulent, dark purple.

Distribution. Himalaya (Sikkim), Assam to Chittagong, Burma and Indochina.

Prain (1903) has reported this plant from Chittagong which is now under Bangladesh.

Cowan and Cowan (1929) has recorded its occurrence in North Bengal without citing its actual place of collection and referring any specific herbarium specimens. Hara (1966) has collected the plant only from Nepal. We also have not found any herbarium specimens of W. Bengal in spite of thorough search in the herbaria (CAL and BSIS). But we have

collected this plant from Jalpaiguri district. So, the plant is treated as very rare and its occurrence in the plains of W. Bengal recorded for the first time.

Specimen examined — S. N. D. & S.C.R. 3784, Titi forest, Jalpaiguri, 6.11.81 (BSIS).

EUPHORBIACEAE

Glochidion sphaerogynum Kurz, For. Fl. Burma 2 (1877) 346; Deb. D. B. Bull. Bot. Surv. India 3 (1961) 290; Prain, D. Beng. Pl. 2 (1903) 697; Hook. f. Fl. Brit. India 5 (1890) 317.

A medium-sized or small tree. Leaves 5-15 cm long, 1.4-3.5 cm. broad, lanceolate, acuminate; base oblique. Flowers clustered; male flowers small, pedicelled; female flowers subsessile. Capsules subsessile, 8-12 lobed with large globose style in the depressed apex in congested fascicles.

Distribution. Eastern tropical Himalaya (Sikkim & Bhutan), Chittagong, Burma and from Peru to Tenasserin.

Prain (1903) has reported this plant from Chittagong which is now in Bangladesh. Cowan and Cowan (1929) and Hara (1966, 1971 & 1974) have not reported this plant from any part of W. Bengal. So, the occurrence of this plant in W. Bengal is treated as very rare and the present report of its occurrence is the first record.

Specimens examined — S. K. Mukherjee 5604, Apalchand, Kathambari, Jalpaiguri, 1962 (CAL); H.B.C. (CAL), S.N.D. & S.C.R. 3534, Gayatring, Totopara, Jalpaiguri, 18.4.81 (BSIS).

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INDUSTRIAL SECTION,
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CALCUTTA-700 013,
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37. NOTES ON *VIOLA BETONICIFOLIA* J. SM. *SENSU LATO* IN INDIA

(With a text-figure)

V. betonicifolia sensu lato (Sect. *Nominium* Ging., sub-sect. *Adnatae* W. Beck.) includes three sub-species — ssp. *betonicifolia*, ssp. *jaunsarensis* and ssp. *nova-guineensis*. W. Becker (1917) included under *V. betonicifolia* s.l. a series of populations ranging from the north-west Himalayas to eastern Siberia and south-west to southeast Australia. Within this he recognised *V. betonicifolia* ssp. *australensis* W. Beck., (*nomen illegit*, ssp. *betonicifolia*), *V. betonicifolia* ssp. *nepaulensis* (Ging.) W. Beck. and *V. patrinii* DC. The whole complex is united in the possession of short, undifferentiated calycine appendage, short spur on lower petal, clearly bearded lateral petals and short, dark coloured stipules.

The commonest of the *Violas* occurring in hilly regions throughout India which has generally been identified as *V. patrinii* is *V. betonicifolia* ssp. *betonicifolia*. *V. betonicifolia* ssp. *nepalensis* (DC.) W. Beck. is now being included in ssp. *betonicifolia* which appears from the study of a photograph of the holotype of ssp. *nepalensis* in the British Museum (BM). The holotype of *V. patrinii* DC. from Siberia

(G-DC) has been examined *V. patrinii*, which is considered here restricted to Siberia, Manchuria and N. Japan, as also by W. Becker (1917) and Hara (1975) is distinguished from *V. betonicifolia* by the following characters:

Rhizome light brown. Flowers 1-2 cm across. Spur 2-6 mm	<i>V. betonicifolia</i>
Rhizome dark brown to deep violet. Flowers upto 1 cm across. Spur up to 2 mm.....	<i>V. patrinii</i>

The plant occurring in the Western Himalayas with larger flowers, larger spurs and ovate-oblong to lanceolate leaves is *V. betonicifolia* ssp. *jaunsarensis* (W. Beck.) Hara. *V. patrinii* var. *suaveolens* Watt. and *V. kashmiriana* W. Beck. belong to the same race, being connected by a series of intermediate forms.

V. betonicifolia ssp. *nova-guineensis* D. M. Moore (1963) is restricted to Timor and New-Guinea (Type from Asaro Valley, Goroka, New Guinea, 15.6.1956, Hoogland and Pullen 5337 in CANB, photo!).

It differs from ssp. *betonicifolia* and ssp. *jaunsarensis* in bearing triangular — hastate leaves with basal lobes laterally prominent and long decurrent on petiole, which is normally



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