

A NOTE ON THREE INTERESTING ANGIOSPERMIC PLANTS FROM UTTARAKHAND

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ABSTRACT

The state of Uttarakhand has \pm 4800 species under 213 families which is *ca.* 26 per cent of total Indian Flora. Most updated information of floristic account of Uttarakhand is available in a checklist, which includes both wild and cultivated plants, however, without any precise locality. During floristic survey of Uttarakhand, two species *Merremia hederacea* (Burm.f.) Hallier and *Musa balbisiana* Colla. were recorded for the first time from Uttarakhand. Another species, *Uncaria scandens* (Smith) Hutch. was collected from Garhwal Himalayas after a lapse of more than 45 years.

Keywords: Addition to flora, Rare plants, Uttarakhand

INTRODUCTION

Uttarakhand state is located between 77°34' to 81°03' E and 28°43' to 31°28'N and encompasses a geographical area of 53483 km². There are 4,800 species of flowering plants under 1,400 genera of 215 families known, which is about over 26 per cent of the total Indian flowering plants (Pusalkar & Srivastava, 2018). There are number of species whose distribution is restricted and population is meager. Some of species have been collected and deposited in different herbaria decades ago and others are first time recorded from the area. Changing in species status and composition in an area is a dynamic process which should be thoroughly studied and documented at regular basis. Keeping this aspect in mind, the present investigation was carried.

MATERIALS AND METHODS

Extensive floristic survey was carried out in the Uttarakhand. Species were collected and herbarium specimens were prepared. Species were identified using existing floras (Kanjilal, 1969 and Osmaston, 1927) and Dehradun (DD) Herbarium. Specimens were deposited in the herbarium of Forest Research Institute, Dehradun (DD).

RESULTS AND DISCUSSION

During floristic surveys in Uttarakhand three plant species were recorded with interesting distributions. Wild distribution of two species *Merremia hederacea* (Burm.f.) Hallier and *Musa balbisiana* Colla. were recorded for the first time from the state. *M. balbisiana* was previously known under cultivation. Another species, *Uncaria scandens* was collected from Garhwal Himalayas after a lapse of more than 45 years. The species are enumerated below with their locations.

Merremia hederacea (Burm.f.) Hallier f. in Engl., Bot. Jahab. Syst. 18:118. 1894; Oostst. in Blumea 3: 302.1939. et Fl. Males. 4:441. 1953. *Evolvulus hederacea* Burm. f., Fl. Ind. 77, t, 30 f.2. 1768. *Convolvulus flavus* Willd., Sp. Pl. 2:825. 1798. *Ipomea chryseides* Ker. Gawl., Bot. Reg. 4: t. 270. 1818; Clarke in Hook.f., Fl. Brit. India 4: 206. 1883. *Merremia chryseidis* Hollier f. in Engl. Bot. Jahrb. xvi, 552. 1893; Duthie, Fl. Upp. Ganget. Plain 550. 1903-1929 (Convolvulaceae).

Meena *et al.* (2020) have mentioned that this twiner occurs almost throughout India. Duthie (1903-1929) mentioned its occurrence from upper Gangetic Plain viz. Moradabad and Pilibhit district, now in Uttar Pradesh. Uniyal *et al.*, (2007) mentioned its occurrence from Uttarakhand without giving any precise

locality. However, there is no distributional record mentioned by Kanjilal (1969), Gupta (1968), Raizada (1976), Babu (1977), Raizada & Saxena (1978), Naithani (1985), Pant (1986), Hajra & Balodi (1995), Gaur (1999), Murti *et al.* (2000), Singh & Anand (2002), Rana *et al.* (2003) and Agarwal (2007). Scrutiny of the herbarium specimens deposited at Forest Research Institute Herbarium, Dehradun (DD) and Botanical Survey of India, Northern Circle, Dehra Dun (BSD) reveal that there is no specimen of *Merremia hederacea* is deposited in above mentioned herbaria. One of the authors (HBN) has collected it from Dehra Dun and Sitarganj, Udham Singh Nagar shows first record from Uttarakhand.

Specimen examined: Shimla By pass Road, near Barowala, 10th August 2013, H.B. Naithani 5350, Acc. No. 173127 (DD); Sitarganj, Udham Singh Nagar, 14th October 2016, H.B. Naithani 5742 Acc. No. 173129 (DD).

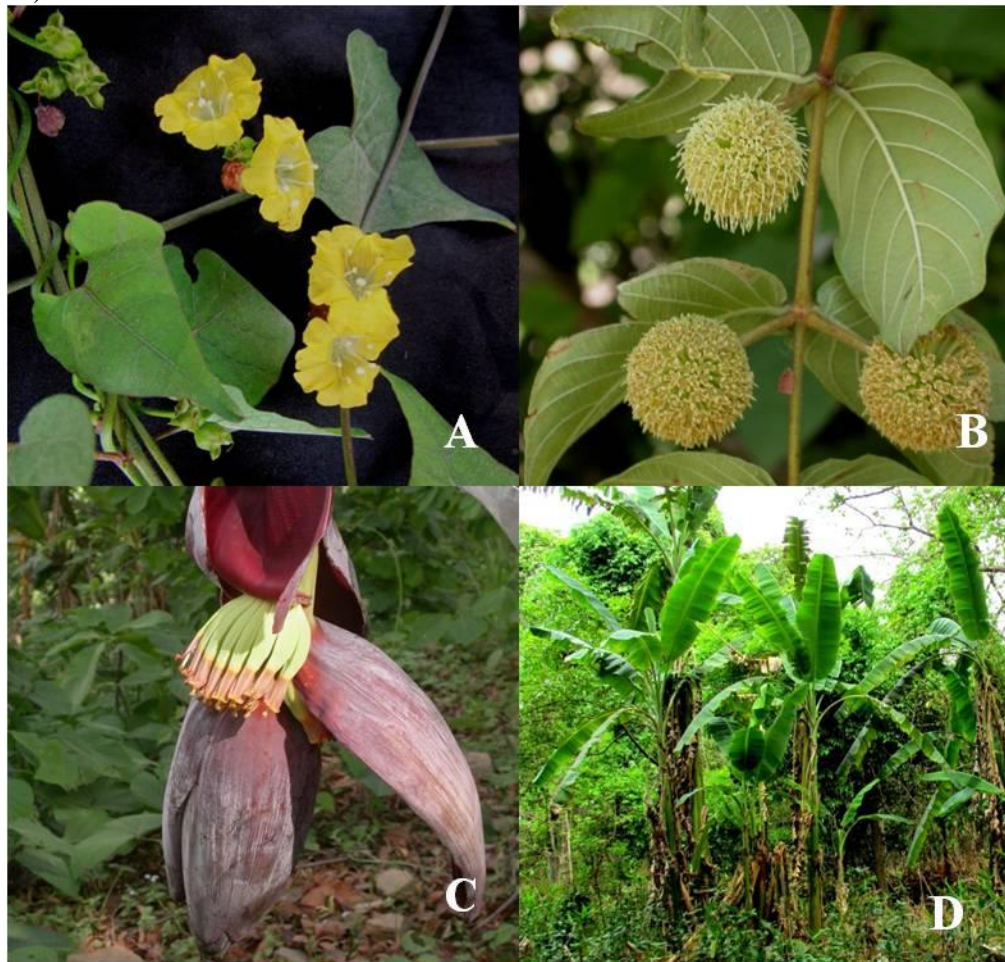


Figure 1: A. *Merremia hederacea*, B. *Uncaria scandens*, C. *Musa balbisiana* (Inflorescence), D. *Musa balbisiana* (Wild population).

Musa balbisiana Colla, Mem. Gen. Musa 56.1820; Hara *et al.*, En. Fl. Pl. Nepal 1: 63. 1978. *M. sapientum* auct. non. L.: Hook.f., Fl. Brit. India 6: 262.1892 p.p. *M. paradisiaea* subsp. *sapientum* (L.) Schum in Engl. Pflanz. 45:20.1990. *M. sikkimensis* Kurz in J. Agric. Hort. Soc. India 5: 164. 1878; Simmon in Kew Bull. 478. 1956 (**Musaceae**).

Musa balbisiana has no wild distribution from Western Himalaya. However, it is commonly cultivated for its edible fruits. According to Naithani (1990) its wide distribution is Assam, Arunachal Pradesh, Sikkim, North Bengal, Meghalaya and Nepal. In a recent publication, Gogoi (2020) has also not mentioned its distribution from Western Himalaya. More than 30 plants were located by one of the

authors (HBN) in the forest of Kanda, Corbett National Park, Pauri Garhwal, which indicates its wild population in Uttarakhand.

Specimen examined: Near Kanda, Corbett National Park, 13th June 2006, H.B. Naithani Acc. No. 173673 & 173674 (DD).

Uncaria scandens (Smith) Hutch. in Sarg. Pl. Wilson. 3: 406. 1916; Ridsdale in Blumea 24: 94. 1978. *Nauclea scandens* Smith in Rees, Cyclop. 24 *Nauclea* n. 9. 1819. *U. pilosa* Roxb., Fl. India 3: 32. 1880; Hook.f., Fl. Brit. India 3: 32. 1880; Osmaston, For. Fl. Kumaon 288. 1927. *U. wangii* F. C. How. in Sunyatsenia 6: 261. 1946 (**Rubiaceae**).

Local name: *Bhainsingia*, vide Osmaston collection (Chamoli, Garhwal).

A large climber is distributed in Arunachal Pradesh, Tripura, Assam, Meghalaya, Sikkim, Tripura and Uttarakhand (Gangopadhyay *et al.* 2020). From Uttarakhand, it is reported by Duthie (1906), Osmaston (1927) and Murty *et al.* (2000). On its occurrence from Kumaon Hills, Osmaston stated that it is “rather scarce” in the area. Regarding its distribution from Garhwal Himalaya, Duthie (1903-1929) mentioned its occurrence in shady ravines. Probably Gaur (1999) during the preparation of Flora of Garhwal could not locate it and mentioned it on the basis of Duthie’s report. Scrutiny of herbarium specimens in DD revealed that Osmaston in the year 1914 has collected it from Karnprayag, Chamoli Garhwal. Rau (1961) and Naithani (1985) have also mentioned it from Chamoli Garhwal. One of the author (HBN) has collected it near Ratwadabh, Kalagarh Forest Division, Garhwal after a lapse of 45 years.

Specimens examined: Karanprayag Garhwal, 21st October 1914, A.E. Osmaston 510. Acc. No. 11325 (DD); one km after Ratwadabh, Kalagarh Forest Division, Pauri Garhwal, 3rd June 2004, H.B. Naithani Acc. No. 173681 (DD).

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