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GENTIANA ARGENTEA VAR. *ALBESCENS* FRANCH. EX FORBES ET HEMSLEY—A NEW RECORD FOR INDIA

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During revisionary study of the family Gentianaceae a large number of specimens deposited in Indian herbaria were isolated under the name *Gentiana argentea* (D. Don) Royle ex Griseb. and many similar unidentified specimens were found to be *Gentiana argentea* var. *albescens* Franch. ex Forbes et Hemsley, an interesting variety, hitherto unrecorded from India. In alpine pastures these plants grow in patches, singly or 2-3 at a place, showing great variation in their habit. The plants are quite distinct from var. *argentea* proper due to their ovate-lanceolate, obovate or ovate-oblong, erect, acuminate leaves and calyx lobes. Kusnezow (1904) described the taxon as a separate species *Gentiana albescens* Franch. ex Kusn. which happens to be a later homonym.

However, authors observed it to be a variety of *Gentiana argentea* (D. Don) Royle ex Griseb. as described by Forbes et Hemsley. The distribution of the taxon was known only from China, Tibet and Afganistan. The present study extends its range of distribution in India.

For the purpose of easy isolation and location in the field as well as in herbaria a short description, supported by line drawings is furnished here.

Gentiana argentea (D. Don) Royle ex Griseb. var. **albescens** Franch. ex Forbes et Hemsley in J. Linn. Soc. Bot. 26 (174) : 124. 1890.

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Type : CHINA : Yunnan hills, near Mosoyn, *Delavay* s.n. (K, P) — Fig. 1.

Gentiana albescens Franch. ex Kusn. in Acta Horti Petrop. 15(3) : 409. 1904, *nom. illegit.*, non Favre (1875).

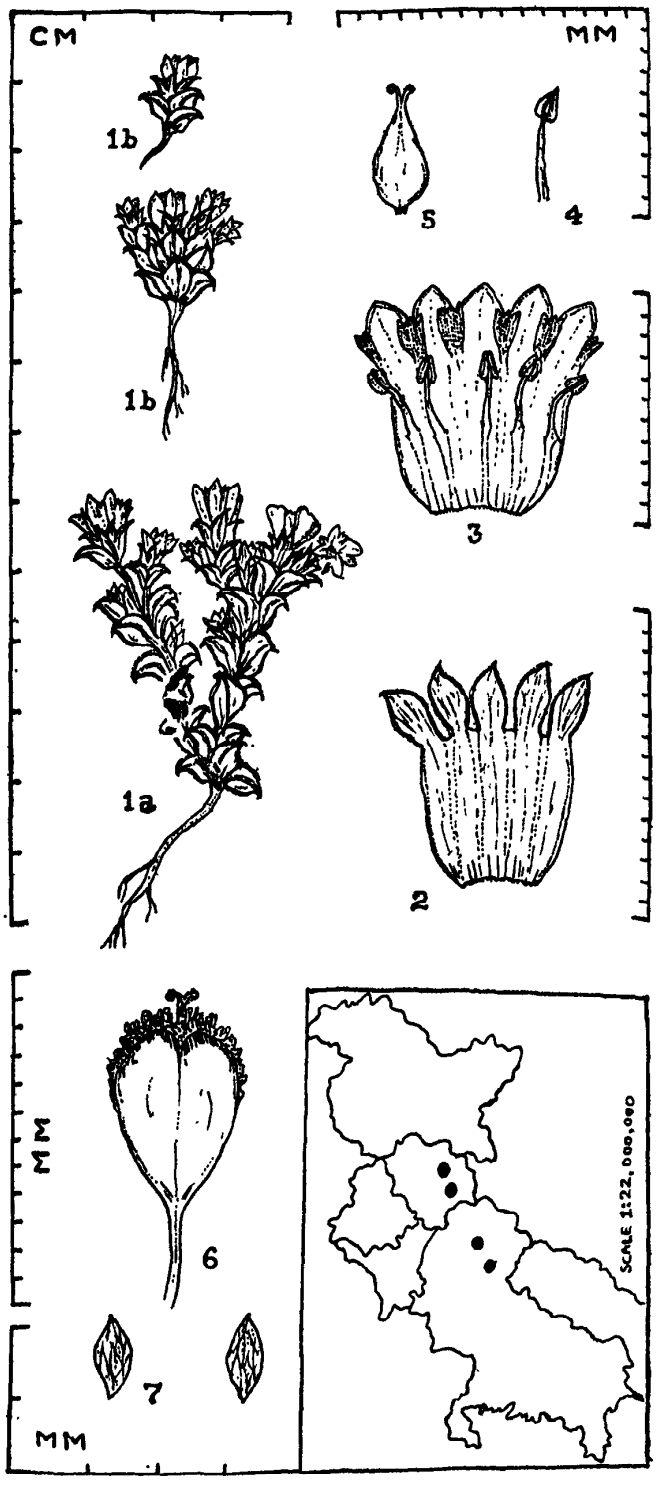
Gentiana sororcula sensu Nair in Bull. Bot. Surv. Ind. 6 (2-4) : 151-53. 1964, non Burkill.

Annual erect, depressed, dense caespitose 0.1-7.5 cm tall herbs, usually greenish-silvery, often with purplish tinge. *Leaves* radical ovate or ovate-lanceolate, aristate, 0.8-2.2 cm long, 4-6 mm broad ; cauline ovate or obovate, suberect-erect, 0.5-0.9 cm long, 3-6 mm broad ; margins cartilaginous, serrulate, upper ones involute. *Flowers* 5-merous, blue, 0.6-1.2 cm long, terminal-clustered or solitary-subsolitary, infundibuliform or subcampanulate. *Calyx* shorter or slightly longer than corolla ; lobes lanceolate or ovate-oblong, aristate, erect, 4-6 mm long, 1-2 mm broad, cartilaginous, serrulate. *Corolla* lobes ovate, acute, 2-3 mm long, *ca* 2 mm broad. *Capsule* obovoid, spathulate, subsessile, crestate at apex, 4-5 mm long, 3-4 mm broad. *Seeds* brownish, numerous, oblong-trigonous, *ca* 1 mm in length.

Fls. & Frts. : February to June ; often September to October in Himachal Pradesh (?).

Etymology : Named on the silvery shine of the foliage (but it is not a constant character !).

Distribution : INDIA : Himachal Pradesh (Lahul, Spiti, Kinnaur) ; Uttar Pradesh (Chamoli, Tehri). CHINA (Yunnan) ; TIBET ; AFGHANISTAN.



Gentiana argentea var. *albescens* Franch. ex Forbes et Hemsley (based on *Janardhanan* 47406, *Nair* 16713A, BSD).

Figs. 1-7 : 1a-c. Habit. 2. Calyx. 3. Corolla. 4. Stamen. 5. Gynoecium. 6. Capsule. 7. Seed. Map showing distribution in India.

Ecology : Dry rocky or grassy slopes ; along water courses or on glacial moraines ; 2500-4200 m altitude.

Specimens examined : HIMACHAL PRADESH : Lahul Koksar, Sissoo, 3400 m, 26 June 1958, *Rau* 5909 (BSD). Spiti : Kunjum area, 3975 m, 7 Sept. 1961, *Nair* 16713A (BSD). Kinnaur : Kalpa, Chini, 2775 m, 3 June 1962, *Nair* 22369 (BSD) ; Chini, 3450 m, 4 June 1962, *Nair* 22424B (BSD) ; Purbani slope below F.R.H., 2500 m, 7 Oct. 1971, *Janardhanan* 46522A (BSD) ; Baspa Valley, Chitkul hillslope, 4200 m, 23 May 1972, *Janardhanan* 47420 (BSD) ; Chitkul hill slope, above the village, 4200 m, 23 May 1972, *Janardhanan* 47406 (BSD) ; Rakcham near P.W.D., Rest House, 20 May 1972, *Janardhanan* 47342 (BSD). UTTAR PRADESH : Chamoli Valley of Flowers, 16 June 1979, *Bhattacharyya* 66399 (BSD) ; Badrinath, 2500 m, 20 June 1979, *Bhattacharyya* 66462 (BSD) ; on way to Valley of Flowers, 3500 m, 16 June 1979, *Bhattacharyya* 66381 (BSD). Tehri Panwali, 3100 m, 4 June 1972, *Naithani* 48159 (BSD).

Notes : Forbes & Hemsley (1890) mentioned the distribution of the variety in China and Afghanistan eastward. But no specimen has been found in major Indian herbaria and from Jammu & Kashmir (India) which is in the east of Afghanistan. It is therefore, expected to occur in this state.

REFERENCES

FORBES, F. B. AND W. B. HEMSLEY. An enumeration of all the plants known from China proper, Formosa, Hainan, Korea, the Luchu Archipelago and the Island of Hongkong, together with their distribution and synonyms. *Journ. Linn. Soc. Bot.* 26(174) : 122-42. 1890.

KUSNEZOW, N. J. Subgeneris—Eugentiana Kusn.—generic *Gentiana* Tourn. *Acta Horti. Petrop.* 15(1-4) : 1-507. 1894-1904.