



A new species of the Genus *Delphinium* (Ranunculaceae) from Lahul Valley of Himachal Pradesh, India

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Abstract

A new species of *Delphinium* (Ranunculaceae) is described and illustrated from Lahul valley of Himachal Pradesh, India. Its affinities with the allied species *D. viscosum* and *D. cashmerianum* are discussed. It differs from closely allied species in having bracteoles with hooked apex, shape of spur that resembles parrot's beak, staminode with dense hoard of hairs at ventral apex, hairs in single line on the inner surface of ovary and cleft stigma.

Key words: Lahul Valley, Himachal Pradesh, *Delphinium lahulensis*, *sp. nov.*

Introduction

While examining the herbarium sheets procured on loan from The Natural History Museum, London (BM), we came across an unidentified sheet of *Delphinium* species collected by *J. D. A. Stainton* (Coll. No. 8840) from, Miyar Nullah, Lahul (H.P.) at an altitude of 2743 m. Apparently, this plant looks like *D. cashmerianum*, therefore, Stainton was confused and commented on sheet “*seems to match Drummond 1194 in the D. cashmerianum collection but I doubt that plant is correctly matched*”. On critical examination, it was found that the characters of this plant from Lahul valley fall within Group V of Munz (1967) and is closely allied with *D. viscosum* Hook f. & Thoms. (1885) and *D. cashmerianum* Royle (1839) but has very distinguishing characters from the allied species which are given below, therefore, the species is named after the type locality Lahul and is described as new species from Miyar Nullah, Lahul (H. P.), India.

Delphinium lahulensis Agnihotri, Husain & Husain, *sp. nov.* (Figs. 1 & 2)

D. lahulensis sp. nov. is closely related with *D. viscosum* Hook. f. & Thoms. and *D. cashmerianum* Royle, but differs in having bracteoles with hooked apex, shape of spur that resembles parrot's beak, staminode with dense hoard of hairs at ventral apex, hairs in single line on the inner surface of ovary and cleft stigma.

Type:—Himachal Pradesh, Lahul valley, Miyar Nullah, 2743 m, 03.08.1884, *J. D. A. Stainton* 8840 (BM).

Erect herbs. Stem 21–34 cm tall, simple, very sparsely hairy. Leaves both radical and cauline; radical leaves 4–6, 2.5–4.5 × 1.2–2.4 cm; primary lobes 3, separate for nearly 60 % of blade radius; central lobe cuneate or broadly ovate; lateral lobes notched once or twice forming 2–3 sub-lobes; lobes and sub-lobes lobulate and dentate, apex mucronate; ultimate lobules ovate-lanceolate, base deeply cordate, petiolate; petiole 8.5–16 cm long, sparsely hairy; cauline leaves similar to radical but having shorter petiole. Inflorescence compound corymb, 2–4 flowered, bracteate; bracts foliaceous, densely hairy, 3-lobed, distal ones lanceolate. Flowers blue, 1.1–1.8 × 0.6 × 1.5 cm, pedicellate, bracteolate; pedicel 1.5–4 cm long, hairy; hairs retrorsely curved; bracteoles 2, 5 mm long, alternate, placed at 10–13 mm away from base of flower, hairy, apex hooked. Sepals 20 × 9 mm, overall hairy; apex densely hairy; spur 10 mm long, 4 mm wide at base, incurved, parrot's beak shaped, hairy; apex blunt; petals 20 mm long, apex bidentate, bearded; staminode 9 mm long, glabrous on ventral surface except dense hoard of hairs at l apex, dorsal surface hairy, cleft 1/3 at apex. Stamens 7–8 mm long; filaments proximally membranous, basifixed; anthers

TABLE 1. Comparison of morphological features of *D. viscosum*, *D. cashmerianum* and *D. lahulensis sp. nov.*

Character	<i>D. viscosum</i>	<i>D. cashmerianum</i>	<i>D. lahulensis sp. nov.</i>
Habit	Erect herbs or ascending 30–80 cm tall with short glandular hairs, paniculately branched from base	Erect herbs, 14–54 cm tall, with bulbous deflexed hairs, branched above	Erect herbs, 21–34 cm tall, very sparsely hairy with simple stem
Leaves	both radical and cauline; lobed and sub-lobed, ultimate lobules ovate; apex mucronate, lamina appressed pubescent at both surfaces	Both radical and cauline, lobed and sub-lobed, ultimate lobules ovate-lanceolate, apex acuminate, lamina densely hairy at both surfaces	both radical and cauline, lobed and sub-lobed, ultimate lobules ovate-lanceolate; apex mucronate, sparsely hairy at veins and margins on ventral surface, dorsal surface glabrous
Inflorescence	few flowered lax corymb	Few flowered particulate corymb	few flowered lax corymb
Bracts	foliaceous, 10–40 mm, ovate to lanceolate, densely hairy	Foliaceous, 15–17 mm, ovate to lanceolate, densely hairy	foliaceous, 6–7 mm long, linear-lanceolate, hairs scattered
Pedicel	2–10 cm, glandular pubescent	2–7.5 cm long, densely hairy.	1.5–4 cm long, hairy; hairs retrorsely curved,
Bracteole	10–20 mm long, near to or remote from flower, densely hairy	4–10 mm long, at middle of the pedicel, hairy	5 mm long, distant from flower, densely hairy, apex hooked
Sepals	Dull violet, 18–25 x 13–14 mm, more or less yellowish villous, upper sepal broadly ovate	Bluish purple 15–25 x 6–12 mm, membranous, sparsely hairy	Blue, 20 x 9 mm, hairy overall with dense hairs at apex, ovate
Spur	Incurved, 13–16 mm long, 4–5 mm wide at base, apex blunt	Straight, 12–15 x 5–12 mm, blunt apex	10 mm long, 4 mm wide at base, incurved, parrot's beak shaped, hairy with blunt apex
Petal	22–30 mm long, bidentate, sparsely hairy at apex	21–24 mm long, erose or bidentate, glabrous	20 mm long, apex bidentate, bearded
Staminode	7 mm long, bearded, rest glabrous, cleft 1/3 at apex	8–9 mm long, long bearded and ciliate, rest glabrous	9 mm long, dense hoard of hairs at ventral apex, rest ventral surface glabrous, dorsal surface hairy overall. Cleft 1/3 at apex
Stamens	6–7 mm long, dilated below, anthers 1 mm long, dark, glabrous	6–7 mm long, well dilated in lower half, anthers 1.2 mm long, dark, glabrous	7–8 mm long, filament proximally membranous, anthers 1 x 0.5 mm, dark, densely wooly
Carpels	3, 10–12 mm long, ovary hairy overall, style 3 mm long, glabrous, stigma not distinct	3, 8–9 mm long, ovary densely hairy overall, style 2 mm long, glabrous, stigma indistinct	3, 5 mm long; hairs in single line on the inner surface of ovary, style 2 mm long, glabrous, stigma cleft

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