

STUDIES IN THE FLORA OF ARABIA XIII:

A new *Delphinium* from Saudi Arabia

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ABSTRACT. *Delphinium sheilae* Kit Tan (Ranunculaceae), a new species belonging to sect. *Delphinium*, is described and illustrated from Jabal Dabbagh, Saudi Arabia. An appendix lists the 14 species of Ranunculaceae recorded from the Arabian peninsula.

***Delphinium sheilae* Kit Tan, sp. nov.** (sect. *Delphinium*). Fig. 1.

D. virgato Poiret (in Anatolia australis Palaestinaeque crescens) habitu simulans et valde affinis, sed floribus pallidissime dilute lilacino-violaceis, sepalis minoribus ovatis vel oblongo-ovatis, ala petalorum superiorem breviori, limbo petalorum inferiorum exserto, elliptico-obovato ad basin non cuneato sed in unguem limbum sesquolongiorem gradatim attenuato differt. Ab plantis orientalibus *D. peregrini* L. floribus pallidis, pedicellis quam bracteis longioribus, calcare quam sepalis plus quam duplo longiori, limbo petalorum inferiorum exserto, elliptico-obovato, ungue limbo sesquolongiori, carpellisque glabris distinguitur.

Herbaceous annual. *Stem* virgate, to 35 cm, retrorsely pubescent at base. *Basal leaves* long-petiolate, to 2.5 cm, lacinate at apex. *Median and upper cauline leaves* oblanceolate to lanceolate, to 1 cm, entire or tripartite at apex. *Flowers* in a lax raceme, unscented. *Bracts and bracteoles* lanceolate, 4-5 mm, shorter than pedicels. *Pedicels* to 8 mm, puberulous. *Sepals* 5, petaloid; posterior spurred, spur pale bluish-purple, 1.5 cm, more than 2 × sepals, puberulous; lateral and lower sepals ovate to oblong-ovate, 5.5-6.2 × 2.5-2.8 mm, puberulous, with darker blue central band. *Petals* 4, glabrous; upper petals winged, unclawed, with nectariferous flexuous spur contained within sepal spur, wing oblong, 5 mm; lower petals spatulate, limb pale blue veined cream, ascending-exserted, elliptic-obovate, 3.5 × 1.5 mm, attenuating into 5.5 mm claw. *Stamens* 14, filaments 4.2 mm, puberulous above the dilated and flattened bases; anthers lemon-yellow, c. 0.9 mm. *Carpels* 3, glabrous, oblong, 3.7 mm; style 1.6 mm. *Ripe follicles* unknown. *Fl.* Sept.

SAUDI ARABIA. North Hijaz, Jabal Dabbagh, granite massif 78 km SW of Tabuk, on NW-facing slopes, flowers pale blue, unscented, 1600 m, 9 ix 1983, S. Collett 4531 (holo. E, iso. K).

Closely allied to *D. virgatum* Poiret from S Anatolia and W Syria, which differs in having deep blue flowers, lanceolate, 8-10 mm sepals, a 10 mm wing to the upper petals, and with limb of lower petals subexserted, broadly ovate and cuneate at base, abruptly contracted into claw 2-2.5 × as long as limb. *D. peregrinum* L. although centred in the E Mediterranean region, extends into Irano-Turanian areas. Plants of *D. peregrinum* in the Near East can be easily distinguished by the dusky violet flowers, bracts which are as long as pedicels, spur c. 2 × sepals, limb

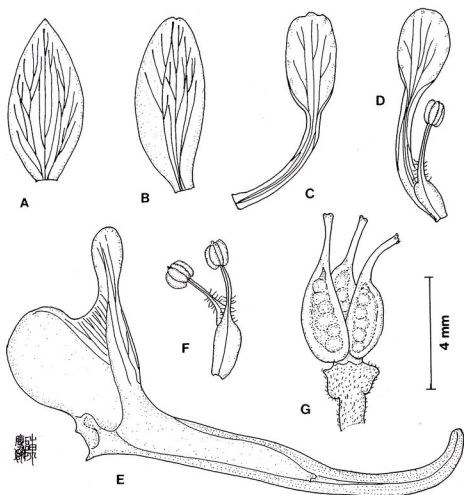


FIG. 1. A-G, *Delphinium sheilae* Kit Tan: A, lower sepal; B, lateral sepal; C & D, lower petals; E, upper petal; F, stamens; G, immature follicles. All drawn to scale shown. Spurred posterior sepal excluded.

of lower petals obovate, included or scarcely exerted and \pm equalling claw, and often pilose carpels.

I am grateful to Dr R. R. Mill for help with the Latin translation and Prof. P. H. Davis for drawing my attention to the new species. It is a pleasure to name this delicately beautiful little annual after Mrs Sheila Collenette who has made so many interesting collections in Saudi Arabia.

The only other species of *Delphinium* so far recorded from the Arabian peninsula is *D. penicillatum* Boiss., a brief description of which follows. This is a perennial belonging to a different section and comes from a widely separated area in the south-east. The record is based on one of Aucher-Eloy's gatherings from Oman in 1838. It seems rather strange that

the species has never been collected again from such a well-botanized area as Muscat. We do know however, that Aucher-Eloy was in the province of Bandar-Abbas in S Iran and *D. penicillatum* has also previously been recorded from arid places in S Iran (Kotschy 393a). It is possible Aucher-Eloy collected this species not from Arabian Muscat but from across the Gulf of Oman, in S Iran. If this can be established, then the recent discovery of the Jabal Dabbagh endemic, with the late flowering time of September, represents not only the sole annual species but also the first *Delphinium* for Arabia—by itself, a noteworthy record.

Jabal Dabbagh (27°51'N 35°43'E) lies in the north-west of the Arabian peninsula. Hedge (*Notes RBG Edinb.* 40:67, 1982) notes it has a rather interesting flora and several new taxa have recently been discovered on the c.2350 m granite massif. Many of them have no affinities with other Arabian species in the same genus. The mountain also shows no floristic links with adjacent areas, not even with Sinai, which is surprising in a locality only 200 km east.

The only *Delphiniums* occurring in Ethiopia are *D. dasycaulon* Fresen and *D. leroyi* Franchet ex Huth (Syn.: *D. wellbyi* Hemsley). They are perennials with bearded petals, both belonging to sect. *Delphinastrum* and are quite unrelated to *D. sheilae*. Their distributions are similar, going far into tropical Africa (Ethiopia to the Congo, N Rhodesia, Kenya, Tanganyika, Mozambique and E Nigeria) but only in areas with a temperate climate. According to field notes, *D. leroyi*, with large, showy fragrant flowers, used to be gathered for the cut-flower market.

Delphinium penicillatum Boiss. in Ann. Sci. Nat. ser. 2, 16:369 (1841). (sect. *Delphinastrum* DC.). Ic: J. Arn. Arb. 48: f. 4N (1967)—petals.

Viscid-pubescent perennial. *Stem* erect, 20–30 cm. *Leaves* petiolate, suborbicular, to 5 cm, tripartite, segments bipinnatifid. *Flowers* in a dense 15-flowered raceme. *Bracts* deltoid, 2 mm, shorter than pedicels; bracteoles linear, 2 mm, pubescent. *Pedicels* 3.5–4 mm. *Sepals* 5, pubescent, pale blue; posterior spurred, spur 9–9.5 mm, straight, less than 2 × sepals; lateral and lower sepals oblanceolate-spathulate, 6 × 2 mm, pubescent. *Petals* 4; upper petals glabrous, spur 10 mm; lower petals with ovate, 5 × 3 mm, white-bearded limb divided into 2 divaricate lobes, claw 4 mm. *Stamens* 4–5 mm, ciliate; anthers yellow, 0.6 mm. *Carpels* 2–3, glabrous.

[ARABIA]. [SULTANATE OF OMAN] Mascate [Muscat], ann. 1838, Aucher 4034 (holo. P-n.v., iso. K).

APPENDIX

The Ranunculaceae are thinly represented in the Arabian peninsula. *Clematis* poses some problems regarding the correct application of names for the Arabian species and related ones in E Africa and India. *Nigella arvensis* L. is more likely to be *N. unguicularis* (Lam.) Spenner or *N. assyriaca* Boiss. Thus the status and nomenclature of the taxa given in the checklist below must be treated as provisional. With further botanical exploration, additions to the flora will surely be made. The recent discoveries by Mrs Collenette of *Adonis dentata* Del. from the northernmost sector of Saudi Arabia (Turayf Camp, 31°39'N 39°29'E) and

Delphinium sheilae Kit Tan from Jabal Dabbagh, are good examples. The total number of genera and species in the Arabian Ranunculaceae now stand at 6 and 14 respectively.

SA, Saudi Arabia; NY, North Yemen; SY, South Yemen; O, Oman

<i>Adonis dentata</i> Del.	SA
<i>Clematis hirsuta</i> Perr. & Guill.	SA, NY
<i>C. inciso-dentata</i> A. Rich. = <i>C. hirsuta</i>	
<i>C. orientalis</i> L.?	O
<i>C. simensis</i> Fresen	SA, NY
<i>C. wightiana</i> auctt. = <i>C. hirsuta</i>	
<i>Delphinium pencillatum</i> Boiss.	O
<i>D. sheilae</i> Kit Tan	SA
<i>Nigella arvensis</i> L.	SY
<i>N. sativa</i> [cultivated]	SA, NY
<i>Ranunculus aquatilis</i> L. s.l.	SA, NY
<i>R. forskoehlui</i> DC. = <i>R. multifidus</i>	
<i>R. multifidus</i> Forssk.	SA, NY
<i>R. muricatus</i> L.	SA, O
<i>R. rionii</i> Lagg	NY
<i>R. trichophyllus</i> Chaix	SA
<i>Thalictrum minus</i> L. s.l.	NY