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PLANT PORTRAIT

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1136. *Fritillaria frankiorum* R. Wallis & R.B. Wallis

Liliaceae

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In the forty years since the publication of Volume 8 of Peter Davis's *Flora of Turkey* (Davis, 1984), several new species of *Fritillaria* have been discovered in Turkey, some by botanists from northern Europe, but most by Turkish botanists trained in Edinburgh, or by their own students. Furthermore, several species such as *F. viridiflora* Post, known only from a single collection pre-1950, have been rediscovered in the wild; these are now covered in the excellent account in the new *Illustrated Flora of Turkey* (Tekşen, 2018) Plate 1136.

Fritillaria frankiorum was named after Erna and Ronald Frank who were keen growers of fritillaries in the 1980s and 1990s, and founders of the Fritillaria Group of the Alpine Garden Society; they found it in the far south of Turkey, near the Syrian border, and it is also known from north-western Syria, where it was included by Mouterde in *F. pinardii* (Mouterde, 1966).

Its discovery in Turkey has been described previously: 'In 1993 Rannveig [Wallis, the first author's wife] and I [RW], in company with Erna and Ronald Frank were looking for *Fritillaria alfredae* subsp. *platyptera* in the far south of Hatay Vilayet, very close to the border with Syria. Ronald, always welcoming a chance to try out his Turkish, asked a man who was sitting near the roadside if he had seen any *ters lale* (literally 'hanging lilies', the Turkish name for fritillary). His excited response to us was that he knew what we were talking about, and he gesticulated to some polythene-covered stacks of what turned out to be tobacco and repeated 'nylon, nylon' several times. Whereupon he showed us what turned out to be a large population of a tall greenish fritillary growing in the fields which had already been ploughed, probably the previous autumn. The soil was extremely wet.

"The plants were new to us and did not key out in the *Flora of Turkey*. A few years later we were on the other side of the border in Syria and found many more plants in similar situations both around Kassab, which is only a few kilometres south of the Turkish locality and others further south, north of Slunfeh (Slenfe)Figure 1. After much discussion and examination of the

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FIGURE 1 *Fritillaria frankiorum* in its extremely wet native habitat, near Kassab, Turkey, 1996. Photograph Robert Wallis.

closely related species, we all agreed that it was a new species and named it after Erna and Ronald Frank without whose wish to involve the local people, we may never have found it (Wallis & Wallis 2003)."

Ronald and Erna Frank were long-standing members of the Alpine Garden Society and founders of the *Fritillaria* and *Cyclamen* groups of the Society. Both were born in 1918; Ronald died in 2005 and Erna in 2008. They met in Germany where Ronald was serving in the army and became a language teacher; he subsequently trained as a chartered surveyor and worked for a German company in London. They travelled widely in search of plants, notably to Turkey (at least 26 visits), as well as to Syria, Lebanon, Greece, Spain, Morocco, the Alps, and Mongolia; they collected several new varieties of alpine plants and bulbs (notably white forms of *Cyclamen* spp.) and grew them in their garden in Warlingham, Surrey. Erna also translated Friedrich Hildebrand's 1898 *Monographie der Gattung Cyclamen, eine systematische und biologische Monographie* (Wallis & Wallis, 2006).

The species was collected in 1964 in three places near Slunfeh in northern Syria, and in 1975 by M. Miski near Altinozu in Hatay in Turkey. At the time these collections were identified as *F. pinardii* after Mouterde (1966), rather than anything new, and specimens are in the Istanbul herbarium (ISTE).

Fritillaria frankiorum can be recognised by its tall stem, glaucous leaves and small yellowish to brownish flowers, usually with spreading tepals; the anthers are mucronate and filaments are notably flattened. It is close to *F. uva-vulpis* Rix in both habitat and in habit, but that has shining green leaves, and a notably globular, greyish flower. *F. uva-vulpis* also lacks the mucronate anther tips of *F. frankiorum*.

Fritillaria frankiorum can be distinguished from *F. assyriaca* Baker by its distinctly mucronate anthers and short, thick style; it is also distinguished by the ciliate margin of the tepal tips (not ciliate in *F. assyriaca*) and by its filaments which are markedly dilated, narrowing at the attachment of the anthers (more or less linear in *F. assyriaca*). *F. pinardii* Boiss. is generally of shorter stature, with broader lanceolate leaves, a grey or brownish flower, and a narrower style, 3-lobed at the tip.

Very little variation has been observed either between or among populations of *Fritillaria frankiorum*, so much so that it is possible that all the plants seen belong to a single clone; this species is also a producer of numerous bulbils, and these form a ready means of vegetative propagation, especially as it grows in the disturbed ground of cultivated fields, which can be



PLATE 1136 ***Fritillaria frankiorum*** JOANNA LANGHORNE

extremely wet in spring; we have once seen the plant flowering in water at least 10 cm deep (Figure 1).

CULTIVATION

Fritillaria frankiorum is one of the easier species to grow in ordinary garden conditions. Dormant bulbs should be planted in early autumn and watered as growth begins. They will survive and flower well in open garden conditions in southern England, provided that they become dry in late summer, and they will tolerate ample water in spring. An ideal position, as

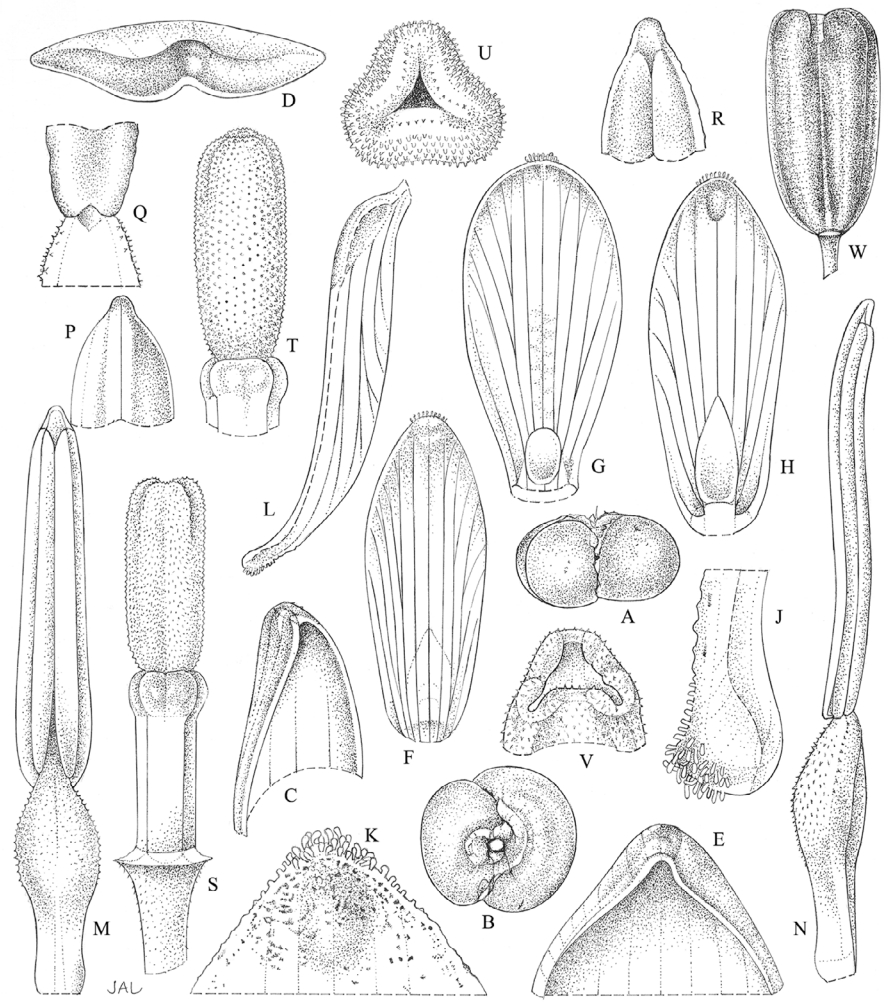


FIGURE 2 *Fritillaria frankiorum*. A, bulb from side, × 1; B, bulb from above, ×1; C, 3/4 view of leaf tip × 6.5; D, leaf tip from above × 8; E, leaf tip from front × 8; F, outer tepal from back × 3; G, outer tepal from front × 3.5; H, inner tepal from front × 3.5; J, L/S of tepal tip × 9.5; K, tip of inner tepal from front × 11.5; L, L/S of inner tepal × 2.5; M, stamen from front × 4.5; N, stamen from side × 5; P, anther tip from back × 6; Q, base of anther from back × 6; R, tip of stamen from front × 10.5; S, stigma style & ovary × 3; T, papillate stigma from side × 3.5; U, stigma tip from above × 6.5; V, mature stigma tip 3/4 view × 8; W, seed pod from side × 1.5. All figures drawn from RRW 96/16 grown at RBG Kew by Joanna A. Langhorne 19.4.2024.

with many bulbous species from Mediterranean climates, is among the roots of deciduous trees, such as ash (*Fraxinus* spp.) or beech (*Fagus* spp.), ideally in limestone or chalky soils.

In these conditions they can form numerous bulbils which are a ready means of propagation. In this *Fritillaria frankiorum* is similar to other species such as *F. acmopetala* Boiss., *F. assyriaca* Baker and *F. uva-vulpis* Rix, all of which are often found as weeds in arable land.

NOMENCLATURE AND DESCRIPTION

Fritillaria frankiorum R. Wallis & R.B. Wallis, The Plantsman, New Series 2(1): 15–17 (2003). Type: a cultivated specimen from Turkey, Hatay, N. of Yayladağı, weed of cultivated fields in seasonally moist or wet soils, 9.4.1993, *Wallis & Wallis, RRW 93.16* (holotype: WIS, isotype: ISTE).

Fritillaria pinardii sensu Mouterde, Nouvelle Flore du Liban et de la Syrie 1: 234 (1966).

Bulb to 2.0 cm across, with numerous bulbils and stolons. *Stem* 20–45 cm. *Leaves* 4–6, glaucescent, all alternate, the lowest linear, flat or slightly canaliculate, 6–11 cm long, 1 cm broad, the uppermost solitary, linear-lanceolate, 3.5–6.5 cm. *Sterile leaves* shining green, lanceolate, to 7 × 2.5 cm. *Flowers* 1 (−2), narrowly bell-shaped, greenish yellow, fading purplish brown, sometimes with a thin purplish edge, not tessellated, widening at the mouth. *Tepals* distinctly ciliate at the tip, 2.1–2.5 cm, the inner 9.5 mm wide, obtuse, the outer narrower, acute, to 8 mm wide. *Nectaries* at the base of the tepal, indistinct, green, ovate-lanceolate on the outer tepal, 4 × 2 mm, ovate on the inner tepal, 4 × 2 mm. *Filaments* 7.5 mm, papillose, distinctly flattened in the middle, narrowing abruptly at insertion of anthers. *Anthers* yellow, mucronate, 6–7 mm long before dehiscence. *Style* 9 mm long, 3 mm in diameter, stout, clavate, papillose. *Capsule* cylindrical, 17–20 mm long, not winged. Figure 2.

Distribution. SE Turkey: Hatay. NW Syria: Latakia.

Habitat. Growing in arable fields, flooded or marshy in the spring. 500–750 m.

Flowering time. March and April.

Turkish name. Saplılàle.

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