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A NEW VICIA FROM SOUTHWEST TURKEY

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ABSTRACT. A new species of *Vicia* (Vicieae, Leguminosae), *V. eristalioides* Maxted, is described from SW Turkey. It is a member of the *V. narbonensis* L. complex of *V.* sect. *Faba* and as such is a close relative of the faba bean.

Because of their high potential for crop breeding or their imminent risk of genetic erosion, a high priority has been ascribed to germplasm collection of crops and crop relatives in the Eastern Mediterranean by the International Board for Plant Genetic Resources. As part of this general conservation programme, Vicieae (Leguminosae) germplasm is being systemically collected throughout the Eastern Mediterranean. While collecting in southwest Anatolia, a taxon from *Vicia* sect. *Faba* sensu Kupicha (1976) with a novel character combination was encountered. Notably it possesses large tuberculate hairs on the legume, and a unique flower colour for a member of the *V. narbonensis* complex; accordingly it is described as a new species, *V. eristalioides*.

Vicia eristalioides Maxted, **sp. nov.** (Sect. *Faba* (Miller) Ledeb.). Fig. 1.

Species nova sectionis *Fabae* sensu Kupicha (1976), affinis *V. galileae* Plitm. & Zoh., *V. johannis* Tamam. & *V. kalakhensis* Khattab *et al.*, legumine rhomboideo 13–20mm lato pilis tuberculatis numerosis ornato, vexillo lilacino venulis atrolilacinis, alis cremeis maculo limbo carente, foliolis saepe ad apicem serratis distincta.

Annual, pilose, 25–120cm. Leaves with 1–2(–3) pairs of leaflets, one pair on lower part; leaflets 15–65 × 12–30mm, pubescent, ovate to elliptic, mucronate, serrate at apex with 2–10 teeth; stipules conspicuous, 10–25mm, semisagittate, incised-dentate; tendrils branched. Peduncles 1(–2)-flowered, shorter than flower. Flowers 25–30mm, not concolorous. Calyx 12–15mm, mouth slightly oblique, teeth unequal, c.3–6mm, triangular, shorter than or equal to pilose tube. Standard lilac blue with darker veins, 2–2·5 × as long as calyx, with limb as long as claw, longer than wings. Wing creamy white without apical spot. Legume 30–50 × 13–20mm, rhomboid with recurved apex, with numerous large 1–4mm long tuberculate hairs, basal tubercle comprising c.$\frac{1}{2}$ hair-length. Seeds 2–4, dark brown with brown hilum and beige hilar groove. *Fl.* March–June.

Type. Turkey, C3 Antalya, Cavus, 25 iv 1987, *Maxted, Kitiki & Allkin* 4256 (holo. K; iso. E, MO, G, SPN and AARI, Menemen, Izmir).

This new southwest Anatolian endemic was discovered on hillside among limestone boulders, in fallow and cultivated land at 450–600m. The sites where this taxa was located had an annual rainfall of 1200mm, grazing pressure was low and the soil type was red Mediterranean with a pH of 7–8. The species was found at three sites between Belin and Cavus, in the Olimpos Beydaglari National Park, Antalya, Turkey. The three sites were all in an area of about 2sq. km north and south of the Kumluca to Kemer road (E24).

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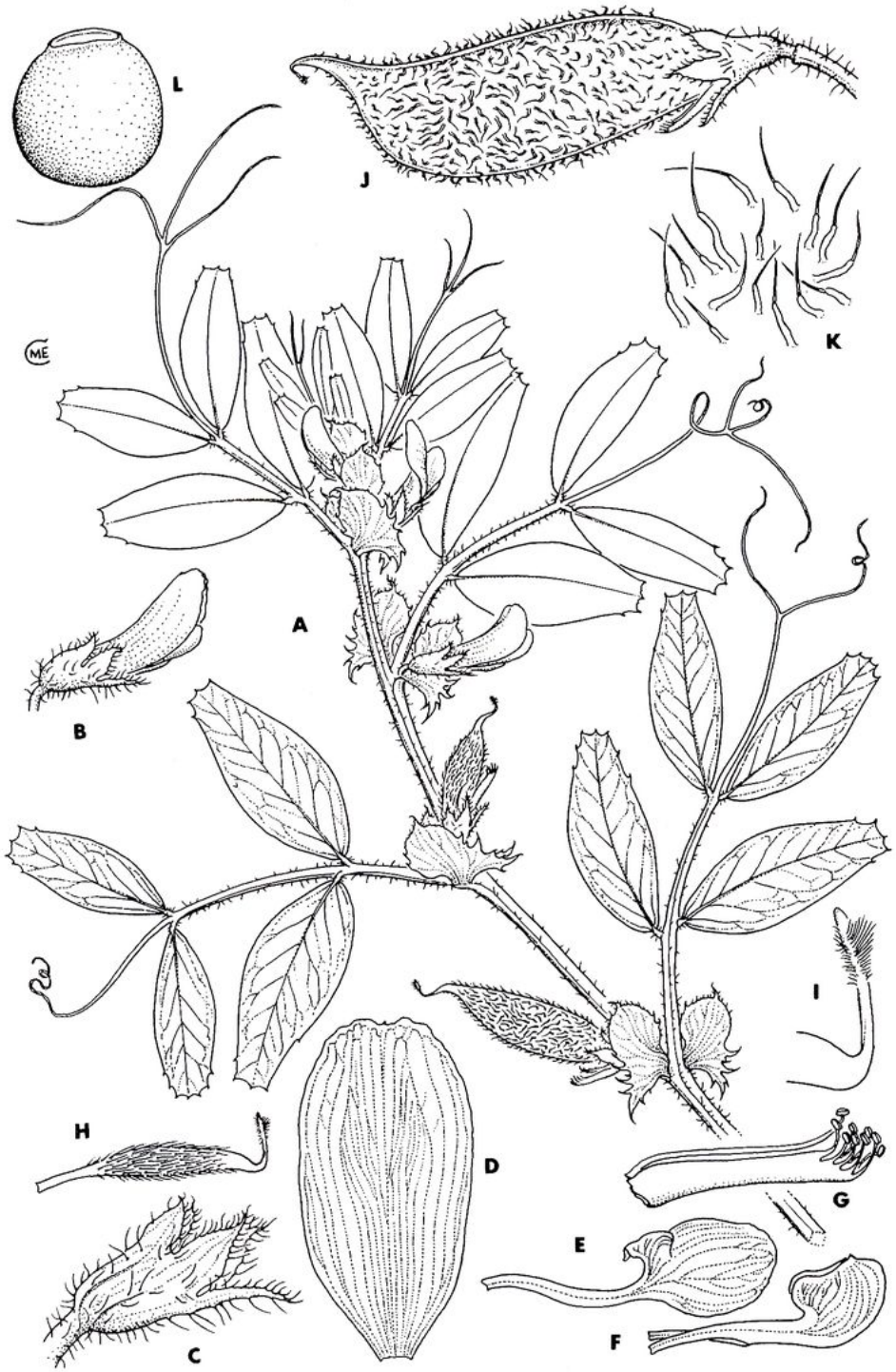

FIG. 1. *Vicia eristalioides*. A, habit ×⅔; B, flower ×1; C, calyx ×2; D, standard petal ×2; E, wing petal ×2; F, keel petal ×2; G, stamens ×2; H, pistil ×2; I, style and stigma ×6; J, fruit ×1; K, detail of fruit valve surface ×6; L, seed ×3. A–K from *Maxted, Kitiki & Allkin* 4256; L from *Maxted, Kitiki & Allkin* 4393.

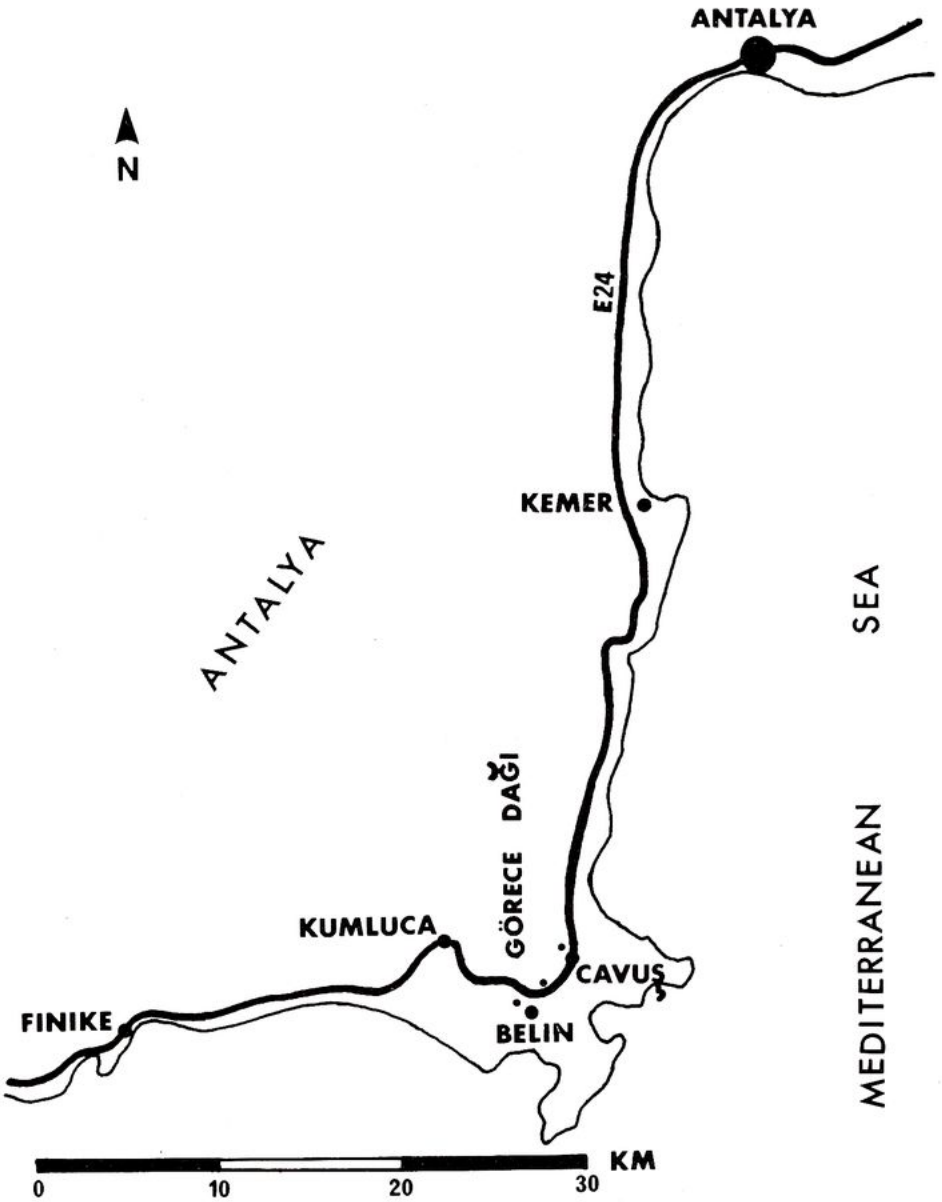

FIG. 2. Map showing the three known localities of *Vicia eristalioides* in SW Antalya.

For more detailed locations see Fig. 2. The three collections made were *Maxted, Kitiki & Allkin* 4256, 4385 and 4393, each of these accessions are duplicated at SPN, E, K and the Aegean Agricultural Research Institute.

Vicia eristalioides is a member of the *Vicia narbonensis* complex and is thus an addition to *Vicia* sect. *Faba*. Within the *Vicia narbonensis* complex its closest ally is the recently described *V. kalakhensis* (Khattab, Maxted and Bisby, 1988), then *V. johannis* and *V. galilaea*. The flower colour and legume shape link the new species with *V. bithynica* L., whose inclusion within sect. *Faba* has recently been questioned by Khattab (1987).

V. eristalioides can be distinguished from its allies in sect. *Faba* by the following characters: the majority of leaflets have apical serrations, but not complete margin serration as seen in *V. serratifolia* Jacq.; the rhomboid legume (not linear-rhomboid as in *V. bithynica*); the legume width of 13–20mm, broader than all other sect. *Faba* species except *V. faba* subsp. *faba* var. *faba*; the large basal tubercule, ± equalling hair length; and the legume tubercular hair base occasionally being bifurcate.

The detailed relationship of *V. eristalioides* and its allies in *Vicia* sect. *Faba* will be discussed in a forthcoming paper concerning the classification of the Faba Bean and its relatives by Maxted, Khattab & Bisby (in preparation).

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REFERENCES

KHATTAB, A. M. A. (1987). *Taxonomic studies on the close wild relatives of the Faba bean (Vicia faba L.) in section Faba*. PhD Thesis, University of Southampton, UK.

——, MAXTED, N. & BISBY, F. A. (1988). Close relatives of the Faba bean from Syria: a new species of Vicia and comments on V. hyaeniscyamus (Leguminosae). *Kew Bull.* 43:535–540.

KUPICHA, F. K. (1976). The infrageneric structure of Vicia. *Notes RBG Edinb.* 34:287–326.