

A NEW IRIS FROM ISRAEL

NAOMI FEINBRUN*

ABSTRACT. A new *Iris*, *I. regis-uzziar* Feinbr., (Iridaceae) belonging to subgen. *Scorpiris* Spach [subgen. *Juno* (Tratt.) Baker] and endemic to the Central Negev and S Jordan is described. The chromosome number has been counted as $2n=22$.

Several species of *Iris* subgen. *Scorpiris* Spach [subgen. *Juno* (Tratt.) Baker] are now known in the E Mediterranean and the adjacent Irano-Turanian territories. They can be subdivided into two groups. The first comprises two species, *Iris palaestina* Baker and *I. edomensis* Sealy and is characterised by oblong acute to acuminate stylar branches and by perianth-segments marked with 1 mm broad oblong spots on a whitish background; in this group outer perianth-segments are ecristate. The other group contains *I. aucheri* (Baker) Sealy, *I. nusairiensis* Mouterde and the new species described here, *I. regis-uzziar*. These species have ovate-rounded, obtuse stylar branches and are devoid of spot markings on the perianth-segments. The outer perianth-segments (falls) are either uniformly coloured or marked with darker veins, and have a conspicuous yellow or orange crest, absent in the species of the first group.

Of these species, *I. palaestina* and *I. nusairiensis* are E Mediterranean and the others Irano-Turanian. *I. edomensis* is endemic in S Transjordan, *I. regis-uzziar* in Cis- and Transjordan, while the area of *I. aucheri* extends from SE Anatolia (?), N Syria and N Iraq to W Iran. Sealy [Kew Bull. 1949:562 (1950)] recorded a specimen of *I. aucheri* from S Transjordan collected by P. H. Davis (D8839).

I. regis-uzziar differs from *I. aucheri* in its squat growth, fewer leaves and the yolk-yellow crest. It differs from *I. nusairiensis*, which it resembles in its general habit, by its uppermost leaf-sheath not being dilated, and in the yolk-yellow crest arising from a zone of similar colour surrounded by a white margin.

Iris regis-uzziar Feinbr. sp. nov. Fig. 1.

Radices carnosae. *Bulbus* ovoideus, 3-4 × 2-3.5 cm; tunicae fusco-brunneae, scariosae, numerosae, ultra collum productae. *Caulis* brevis, 1-2-florus. *Folia* 5-6(-7), falcata, plicato-canaliculata, acuta, multinervia, marginibus conspicue albo-incrassatis; inferiore tempore florendi usque ad 2.5-4 cm lata; folii supremi vagina non dilatata. *Flores* 1-2. *Spathae* valvae pallide virides, acutae. *Perianthium* pallide caeruleum, lilacinum vel pallide lilacinum usque ad fere albidum plus minusve translucens. *Segmenta exteriora* c. 4.5 cm longa; ungue parte alata usque ad 2.5 cm lata, alis sursum flexis; linea mediana vitellina purpureo-punctata et striata; lamina rotundata; crista vitellina elevata zona vitellina albo-marginata cincta. *Segmenta interiora* 2-2.5 × 0.6-0.8 cm, patentia, spathulata, apice saepe truncata et

* Department of Botany, The Hebrew University of Jerusalem.

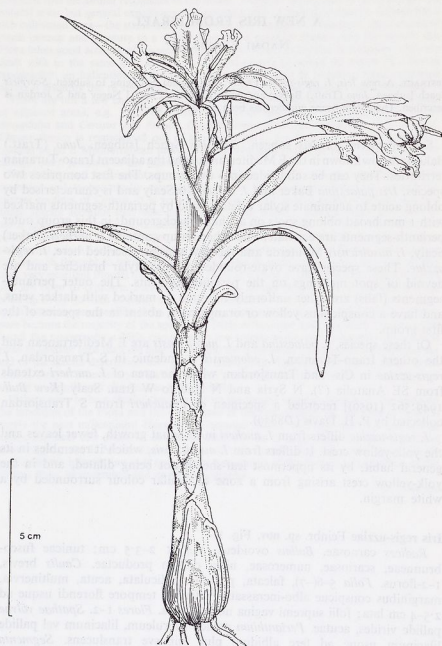


FIG. 1. *Iris regis-uzziae* \times approx. $\frac{1}{2}$.

apiculata. *Styli* ramorum lobi ovato-rotundati, obtusi. *Capsula* 5–7 cm, ellipsoidea. *Semina* subglobosa, rugosa, c. 4 mm. Floret Januario-Februario. $2n=22$.

Habitu *I. nusairiensis* Mouterde sed ab ea differt segmentorum exteriorum crista vitellina elevata zona vitellina albo-marginata cincta, folii supremi vagina non dilatata. Differt ab *I. aucheri* (Baker) Sealy statura minore, foliis paucioribus (5–6 non 8), segmentorum exteriorum crista vitellina. Differt ab *I. edomensis* Sealy perianthio non maculis longitudinalibus atro-purpureis copiose notato, segmentorum exteriorum crista elevata vitellina, foliis latoribus.

Type: C. Negev, Mitzpe-Ramon, loessy hammada, Artemisietum herbae-albae, together with *Rheum palaestinum* Feinbr., *Crocus damascenus* Herb., *Malabaila sekakul* (Mill.) Boiss., *Colchicum tunicatum* Feinbr., 890 m, 31 i 1978, *Varda Raviv* s.n. (holo. HJ; iso. E).

Hab.: Rocky and hammadoid slopes, in Artemisietum herbae-albae and in *Zygophylletum dumosi*, 500–1000 m above sea level; annual precipitation 100–200 mm. Highlands of C Negev and S Jordan.

ISRAEL: C Negev: Wadi Murra, near canyon (En Avedat), 4 iv 1950, leaves, Y. D'Angelis 13391 (HJ); edge of Makhtesh Wadi Hathira, SW of Qurnub, Artemisietum herbae-albae, 10 iv 1950, leaves, D. Zohary 13393 (HJ); between Wadi Murra and Tel Rakhma, 25 iii 1952, leaves, M. Zohary 13392 (HJ); Nahal Nitzana, broad wadi, loess, 900 m, 11 iii 1967, flowers, A. Danin s.n. (HJ); C Arava Valley, Wadi Ajrim, 24 iv 1950, leaves, Y. D'Angelis s.n. (HJ). Several colour transparencies from C Negev are available.

Two colour slides, kindly lent to me from the Kew photographic collection, seem to be of *I. regis-uzziae*, both taken at Ras en Naqb, Edom (S Jordan). One of the slides by D. Birkinshaw, 13 ii 1966, shows bluish flowers; the other by L. Boulous, 12 ii 1974, shows cream-coloured flowers.

This endemic species was first collected in the early forties on the eastern slope of Mt Scopus of Jerusalem by the late T. Kushnir. The bulbs collected in the Artemisietum herbae-albae on Senonian chalky soil were planted but no specimen has been preserved. Later, from the fifties on, the plant has been repeatedly observed, collected and photographed in the highlands of Central Negev; there are many cisterns associated with King Uzziah (*Chronicles* II 26, 10) in the area and hence the name *I. regis-uzziae* was chosen.

The following is a translation from Hebrew of an extract from an article by Dr Daniel Shimshi (Beer-Sheva, Israel), who published the results of his observations on *I. regis-uzziae* in *Teva Vaaretz* 16 (6): 271–272 (1974). "This Iris appears south of the line Bik'at Tsin—Har Boker and reaches Mt Ramon. It is frequent especially around Avedat. Its bulb is oblong and situated at the depth of 10–15 cm; the tunics are membranous and persist for a few years only. The characteristic thick roots as well as the bulb serve as reserve organs. The leaves appear after the first rains; they are dark green with a white margin. At an early stage one can distinguish specimens which flower during the current year from those that will not do so. In the latter, leaves do not exceed 3 in number and their width does not reach 1 cm; the former have more numerous leaves and the lower leaves are up to 4 cm wide. The flowers appear between the middle of January and the end of February,

their height is about 10 cm. The falls are light sky-blue, with a deep yellow blotch at base. The standards are reflexed. In contrast to *I. palaestina*, the flowers are scentless. Towards the end of the growing season, in April-May, the capsules mature. The seeds are dispersed, as in the majority of *Iris* species, by ants. Last year's bulb scales shrivel while new ones fill with reserve materials. At the same time new thickened roots develop instead of the shrivelled old ones. The bulb thus is annual. Bulbs usually develop in the axils of bulb scales. As a result, one often finds clusters of bulbs".

Mr Gideon Schutz of Beer Sheva reported on our new Negev species at an international *Iris* conference in Florence in 1963. He gave the following details on the vegetation at the sites of *I. regis-uzziiae* in the Negev highlands. "The soil is calcareous and rocky, mixed with eolian loess. Trees are rare. The tree species are *Pistacia atlantica* and *Acacia raddiana*. The dwarf-shrubs are *Artemisia herba-alba*, *Reaumuria palaestina*, *Haloxylon articulatum*. The geophytes include *Ornithogalum trichophyllum*, *Urginea undulata*, *Bellevalia desertorum*, *Scilla hanburii*, *Gagea reticulata*, *Colchicum tunicatum*, *Tulipa amphophylla*, etc."

Mr Schutz sent some bulbs to the late Prof. M. Simonet, who counted $2n=22$ (6 average-sized rods, 2 longer rods and 14 V-shaped very long chromosomes).