

## Two New Species of *Iris* L. (Iridaceae Juss.) from Uzbekistan

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**Abstract:** Two new *Iris* species collected in the southern part of Uzbekistan are described. Both species belong to subgenus *Scorpiris* SPACH.

**Zusammenfassung:** Zwei neue *Iris*-Arten aus dem südlichen Usbekistan werden beschrieben. Beide Arten gehören zur Untergattung *Scorpiris* SPACH.

**Key words:** *Iris*, taxonomy, endemism, hotspot, Uzbekistan.

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### Introduction

In 2010 the living plant collection of monocots was recreated in the botanical garden named after academician F. Russanov (Tashkent, Uzbek Academy of Sciences). 25 years ago working together with German botanists from IPK (Gatersleben) the *Allium* living collection consisted of about 120 species. Starting from 2012 Uzbek botanists are studying systematics of Liliaceae s. l. for the 2<sup>nd</sup> edition of the Flora of Uzbekistan. Genus *Iris* L. consisted of about 40 species (KHASSANOV & RAKHIMOVA 2012). Like in *Allium*, flower morphology could be studied on living plants only. After being dried, the perianth changes its size and form. Therefore, creation of determination keys based on living material became necessary in spite of the old ones (VVEDENSKY 1971, WENDELBO 1971). During the last collecting missions 2 new *Iris* species have been found in the southern part of Uzbekistan

(close to the border to Afghanistan). There is no doubt, that Uzbekistan as a part of Middle Asia can be treated as one of the largest hotspots of the genus *Iris* and it is clear that much more new taxa will be described in the near future from this area.

### Results and Discussion

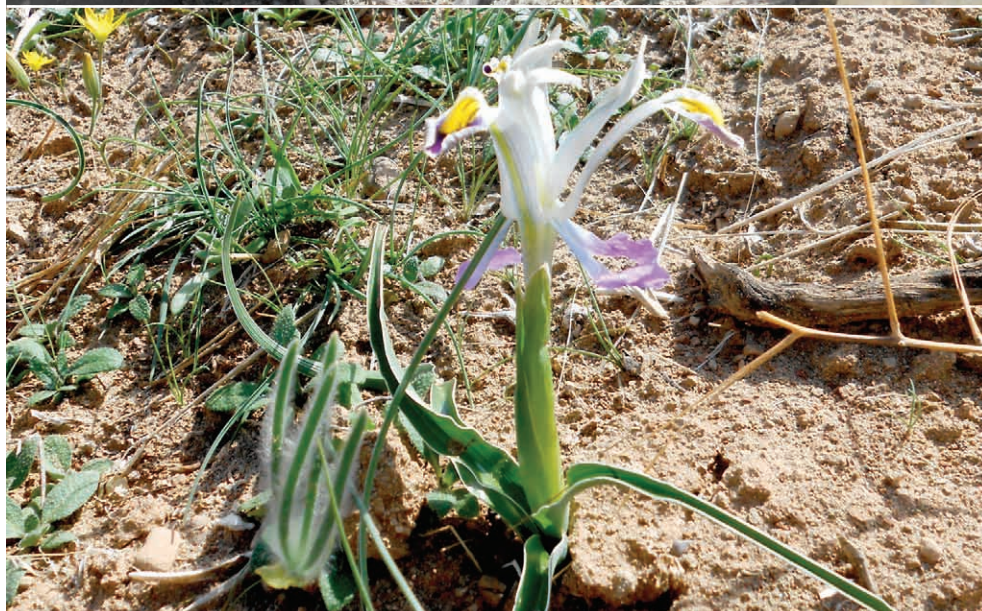
There are about five *Iris* species having real yellow perianth. The closest to the first new species is *I. svetlanae* (VVED. ex TSCHERNEVA) F. O. KHASS., growing on the large area on the foot hills of Hissar mountain range (from Dehkanabad to Bajssun villages). At first sight these two species could be treated as one but differences in sizes and forms of tepals clearly showed originality of the second species, which is growing on the grey clays only. *I. svetlanae* normally grows on the red gypsaceous clays (Fig. 1).



**Fig. 1:** *Iris svetlanae* (VED.) F. O. KHASS.



**Fig. 2:** *Iris victoris* F. O. KHASS., U. KHUZH. & N. RAKHIMOVA



**Fig. 3:** *Iris rudolphii* F. O. KHASS., ESANKULOV & ACHILOVA

## Description of new taxa

### *Iris victoris* F. O. KHASS., U. KHUZH. & N. RAKHIMOVA, sp. nov. (subgenus *Scorpiris* Spach) (Fig. 2)

**Type:** Uzbekistan. Kelif-Sherabad range; nearby village Aktash, grey clays; N 37°33'08,01", E 66°41'29,44"; 560 m. s. l.; 2.3.2013; F. O. Khassanov, U. Khuzhanazarov & N. Achilova (Holotype: TASH).

Species in honorem V. P. Botschantzev denominata est.

Bulb ovate, about 1 cm width. Tunics papyraceous, greish. Stem 5-10 cm high. Leaves 3-6, connivent, crescent, acute, with whitish margins, lowest 2-4 cm width. Flowers yellow, 1 (2-3); tube 2-3 cm long. Outer tepals 3.5-4 cm long with large (up to 1 cm) wings and 3 greenish stripes; claws reniformed, 1.4-1.8 cm long, 2-2.4 cm width; crests yellow, smooth. Inner tepals 1-1.3 cm long, above enhanced, sharp. Style blades yellow, shorter than outer tepals, above divided.

The second new species has been found on the red sandy foot hills 5 km east of Aktash village. Surprisingly, its relationship with *I. hippolyti* (VVED.) KAMELIN growing practically in the Kyzylkum desert (Kokcha mountains) became clear because of the details of the flowers.

### *Iris rudolphii* F. O. KHASS., ESANKULOV et ACHILOVA, sp. nov. (subgenus *Scorpiris* Spach) (Fig. 3)

**Type:** Uzbekistan. Kelif-Sherabad range; nearby village Aktash, red sands; N 37°32'0,75", E 66°42'11,66"; 500 m. s. l.; 2.3.2013; F. O. Khassanov, Esankulov & N. Achilova (Holotype: TASH).

Species in honorem R. V. Kamelin denominata est.

Ab *I. hippolyti* (VVED.) KAMELIN ex TAKHT. tepalis interioribus nec alatis, exterioribus apice reniformibus differt.

Bulb ovate, about 1 cm width. Tunics papyraceous, brownish. Stem 10-29 cm high. Leaves 3-4, connivent, crescent, acute, with whitish margins, lowest 1.5-2 cm width. Flowers bluish, 1; tube 2 cm long. Outer tepals 3-3.5 cm long without wings, but with yellow-dark blue points; claws reniformed, 2 cm long, 1.5 cm width; crests yellow, smooth. Inner tepals 2.5-3 cm long, from the mid enhanced, rounded. Style blades white-bluish, equal to the outer tepals, above deeply divided.

These new species underline that the Pamir-Alaj area could be characterized by high endemism of *Liliaceae* s. l. (e. g., genera *Allium*, *Iris*, *Tulipa*, *Ungernia*, *Eremurus* etc.).

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