

# A NEW SPECIES OF THE GENUS MUSCARI (LILIACEAE) FROM IRAN

Hossein Maroofi

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*Muscari kurdicum* is described as a new species from Kurdistan (Iran). The new species is close to *M. Pseudomuscari*, *M. azureum* and *M. coelestre*, but differs from them in some characteristics, which are explained in the text.

Hossein Maroofi, Research Center of Agriculture and Natural Resources of Kurdistan, P. O. Box 66169-36311-714, Iran.

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Muscari از ایران (استان کردستان)

گونه جدید از جنس

حسین معروفی

گونه *Muscari kurdicum* به عنوان گونه جدید نامگذاری و شرح داده می شود. تفاوت های این گونه با خویشاوندان آن که عبارتند از *M. pseudomuscari*, *M. azureum* and *M. coelestre* در جدول پیوست شرح داده می شود.

## Introduction

In the new gathering of plants in Kurdistan (West of Iran), there was an interesting *Muscari* species which was identified as a new species of the genus. The new species is described.

## *Muscari kurdicum* Maroofi, sp. nov. (Fig. 1).

Planta floriferi usque ad 14 cm. alta, fructiferi usque ad 21 cm. alta. Bulbus 1, 2-2.7×1.2-2.4 cm, ovoideus vel oblongus, non prolificus, tunica brunnea. Folia plerumque 2-3, raro 6, erecto-ascendentia, oblongo-oblancheolata canaliculata, inferene vaginata, florifera 3.5-8×0.7-1.3(-2.2) cm, fructifera usque ad 14 cm. elongata, viridia. Scapi 1-2, 7-14 cm. longi, folias superantes, fructiferi elongati. Racemus densus, ovoideo-ellipticus 4-35×9-18 mm, floribus numerosis. Flora fertilia 7-36, raro usque ad 62, 4-6×2-3.5 mm., campanulata, faucibus non constricta, nutantes, caerulea vel violacea, raro alba; pediceli nutantes vel deflexi, 3-4.5 mm. longi. Lobi 1.5-2.8×1.1-1.5 mm. leviter inflexi, tubo concolori, triangulares vel ovoidei, alternate breves et longi. Flora sterilia pauci, usque ad 4, erecta vel patentia, caerulea vel dilute vioacea, dorsis anguste atroviolaceis fasciatis; pediceli ca. 2 mm. longi. Stamina biseriata, infra tubum medianum affixa. Anthera ca. 1.4 mm. longa, violacea. Filum ca. 0.5 mm.

longum, basi planum. Ovula 4. Capsula 5.5×5.5 mm. Semina 1.6×1 mm., ovata, nigra, paginis paulo foveatis.

Plant up to 14 cm. in flowering time, then elongating to 21 cm. in fruiting time. Bulb 1.2-2.7×1.2-2.4cm., ovoid to oblong, not proliferating, with brown ivory tunic. Leaves usually 2-3 or rarely 6, erect- ascending, oblong-oblancheolata, canaliculate, sheathing below, 3.5-8×0.7-1.3 (-2.2) cm. in flowering time, then elongated up to 14 cm, dark green. Scape 1-2, 7-14 cm., overtopping the leaves, becoming longer in fruiting time. Raceme dense, ovoid-elliptic, 4-35×9-18 mm., many flowered. Fertile flowers 7-36, rarely up to 62, 4-6×2-3.5 mm, campanulate, without distinct constriction at throat, turned upside down, blue to bright or dark violet, rarely white; pedicels of fertile flowers drooping to deflexed, 3-4.5 mm. Lobes 1.5-2.8×1.1-1.5 mm., slightly inflexed, same color as tubes, triangulare to ovoid, alternatively small and large. Sterile flowers few, up to 4, erect to patent, blue to bright violet, with narrow dark violet fascia on the back of lobes and tubes; pedicels about 2 mm., Stamens biseriata, attached below middle of tube. Anther about 1.4 mm., violet; filament c. 0.5 mm, flattened at base. Ovules 4. Capsule 5.5×5.5 mm. Seeds 1.6×1 mm., ovate, black, with rather pitted surface.

*Typus.* Kurdistan: Divandarreh to Saqqez, 3 Km. to Zarieneh village, 2100 m, 3.3.2004, Maroofi 7109

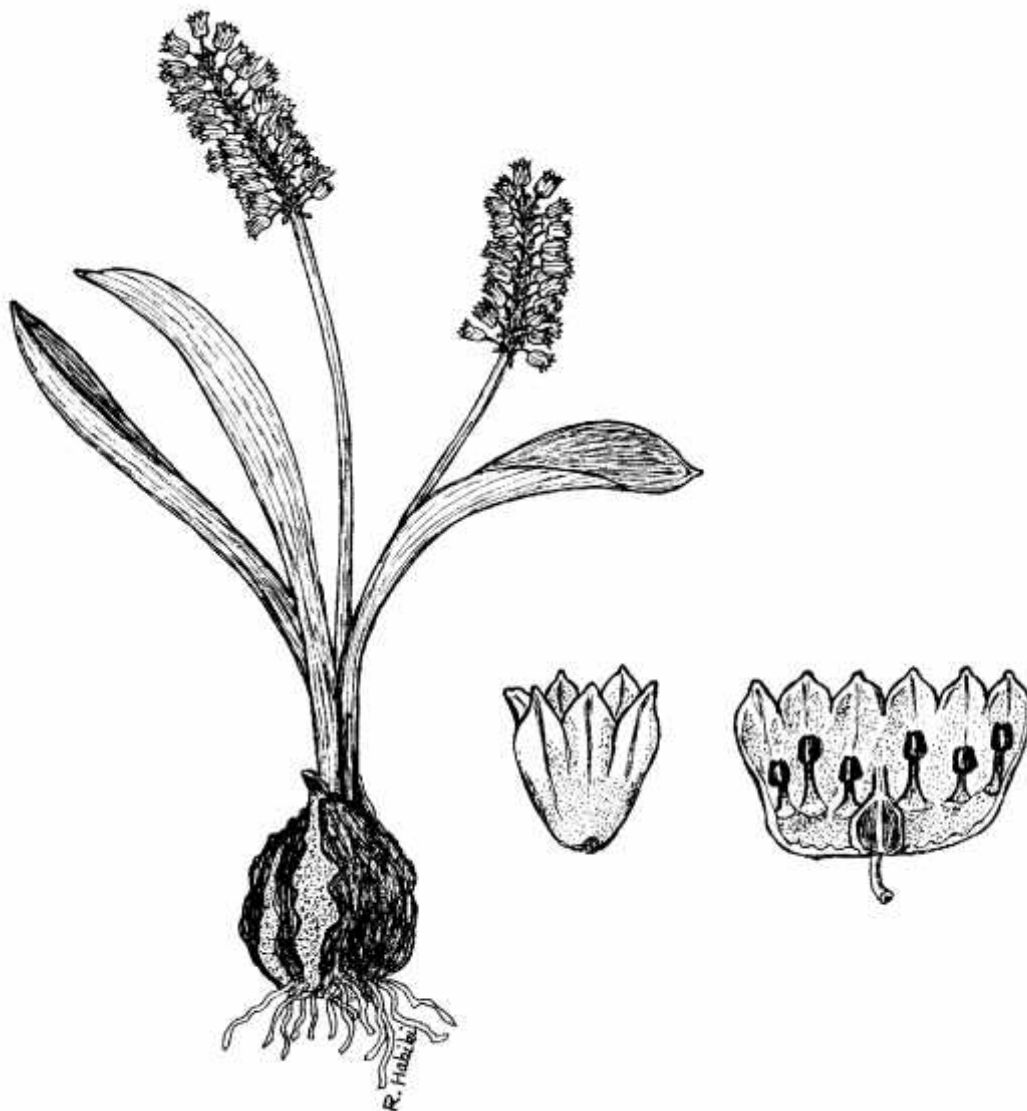


Fig. 1. *Muscari kurdicum* (x 1); flower (x 5).

(holotypus Kurdistan herbarium; isotypus TARI ); same place 7802 and 7791. *Muscari kurdicum* belongs to the subgen. *Pseudomuscari* (Los.) Stuart. is related to *M. pseudomuscari* (Boiss. & Buhse) Wendelbo (= *M. chalusicum* Stuart.) from N. Iran, *M. azureum* Fenzl and *M. coeleste* Fomin from Turkey. It differs with the nearest relative *M. azureum* Fenzl by different features such as leaves size and shape, scape size, raceme size, flower color and stamen characteristics. The new species is compared with relatives in table 1. The characters have partly been taken in Davis & Start (1984), Djafari (2005) and Rechinger (1990).

## References

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Table 1: Comparison of *Muscari kurdicum* and its relatives.

Characters	<i>M. kurdicum</i>	<i>M. pseudomuscari</i>	<i>M. azureum</i>	<i>M. coeleste</i>
Bulb diameter	1.2-2.7cm.	1.5-3 cm.	0.8-2.5 cm.	8-15 mm.
Tunic color	Brown ivory	Grey-Brown	?	?
Leaves	2-3 rarely 6	2-4	2-3	2-3
Leaves size, shape and position	3.5-8×0.7-1.3(-2.2) cm., oblong-lanceolate, erect-patent	7.5- cm. ×3-8 mm linear-lanceolate, deflexed	(3-) 6-18 cm. × 3-15 mm. linear to oblanceolate, erect-patent to falcate	5-14 cm. ×3-7 mm., linear –lanceolate, ?
Sheathing leaves	+	unknown	+	+
Scape	7-14 cm.	9-20 cm.,	4-20cm.	6-12 cm.
Raceme shape and size	Ovoid-elleptic, 1.2-3.5×1.2-1.8 cm.	Ovoid, 1-3× 1-2 cm	Ovoid,1-3×1(-1.5) cm.	Laxy ovoid to broadly cylindrical, 1-3×1-2 cm.
Fertile flower and size	10-36(-62), 4-6× 2-3.5 mm.	27-30, 4-5 mm.	Total flower 20-60, 4-5×2.5-3 mm.	Total flower 6-25
Flower position and color	Turned upside down, blue to bright or deep violet with narrow dark violet fascia back of lobes and tubes, rarely white	Turned upside down, sky blue to bright violet	?, brighy sky blue with narrow dark blue fascia down tube and center of lobes	?, sky blue (drying pale blue to violet blue)
Pedicels position and size of fertile flower	Drooping to deflexed, 3-4.5 mm.	Deflexed, 2-3 mm.	Ascending or spreading, 2-4 mm.	Recurved in flower, patent in fruit, 2-4mm.
Tepal lobes size and shape	Triangulare to ovoid, 1.5-2.8×1.1-1.5 mm.	?, 1-2 mm.	?, 3×1-1.5 mm.	Ovate, 1.5-2 mm.
Sterile flowers	Few	7-12	Few	-
Stamens	Biseriate	Mainly biseriate	Nearly uniseriate	Bisreiate