

A NEW SPECIES OF THE GENUS ASTRAGALUS FROM IRAN

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Astragalus malaviensis Sect. *Caprini* is described as a new species from Lorestan Province, Iran. It will be compared with its close relatives. Furthermore, an illustration of the new species will be provided.

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Key words: *Astragalus*; Sect. *Caprini*; new species; Lorestan; Iran

یک گونه جدید از جنس گون (*Astragalus*) از ایران

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یک گونه جدید از جنس گون به نام *A. malaviensis* از بخش *Caprini* از استان لرستان، شهرستان ملایم شرح داده می‌شود و با گونه‌های نزدیک خود مقایسه می‌گردد. هم‌چنین تصویری از گونه جدید ارائه می‌گردد.

INTRODUCTION

The huge genus *Astragalus* with 880 distinct species in Iran, is unequally distributed in different provinces. About 131-133 species are present in Lorestan Province (Mehrnian and Maassoumi, 2017; Maassoumi, 2020a, 2020b).

Sect. *Caprini* DC. with 256 species is the largest section within 155 known sections in the genus *Astragalus*, which is widely distributed in the Old World (Maassoumi, 2020a, 2020b). In Iran, this section consists of 127 species from which 93 are endemics. Species of this section are widely

distributed in Zagros Mountains Range (Podlech 1999; Maassoumi 2003; Mehrnia & Maassoumi 2017), Talesh (Podlech 1999; Maassoumi & al. 2015; Bidarlard & al. 2018), central part and Alborz Mountain (Bagheri & al. 2011; Maassoumi 2003) and extend to the east of Iran (Maassoumi 2003; Mahmoodi & al. 2009).

The species of this section are unequally distributed in different provinces of Iran. In Lorestan province with 24 species (Maassoumi 2020) or 17 species (Mehrnian and Maassoumi 2017), there are 4 endemics including *A. aegobromus* Boiss. & Hohen

subsp. *grandifrons* Bornm., *A. saremii* Maassoumi, *A. alienus* Podlech, and ten other species are shared with neighboring provinces (Maassoumi 2020a, 2020b) such as: *A. kermanschahensis* Bornm., *A. archibaldii* Podlech, *A. aliomranii* Maassoumi, *A. elwendicus* Bornm., *A. lambinonii* Podlech.

MATERIALS AND METHODS

In 1992, the project of collection of the flora of Lorestan province and establishing a provincial herbarium started in the frame work of a national project and the botanists of this research center included the complete collection of the flora of the province in their work plan and goal. During this time the major part of the flora of Lorestan were collected. The materials with using relevant floras including Flora Iranica (Podlech, 1999), Flora of Iran (Maassoumi, 2003) were identified. For identification of *Astragalus* species, the second author tried to determine the collected materials. Finally, a list of species prepared (Mehrnia and Maassoumi, 2017). Within collected materials a specimen was identified as a new species which is described here.

RESULTS AND DISCUSSION

New species

Astragalus malaviensis Maassoumi & Mehrnia, **sp. nov.** Sect. *Caprini* DC., fig. 1.

Differs from *A. maassoumii* Podlech, in stipule ca 10 mm, adnate to petiole (not 3-4 mm), leaflets narrowly elliptic (not obovate), upper side glabrous (not pilose toward margin). Pedicel ca. 12 mm long (not 4-6 mm), bracteole one pair in the middle of pedicel (not absent), standard ca. 40 mm long (not 25-32 mm); differs from *A. saremii* Maassoumi, in leaflets narrowly elliptic, upper side glabrous not orbicular and densely hairy; differs from *A.*

rhabdophorus Bornm., in being stemless, leaflets narrowly elliptic not with developed stems and broadly ovate-oblong leaflets, peduncle 2-2.5 cm long not 3-8 cm long.

Plant ca. 15 cm high, acaulescent, at the base, petiole and rachis covered with long ascending hairs, ca. 2-2.5 mm long. Stipules lanceolate, brownish, ca. 11-20 mm long, pilose, at the base, ca. 10 mm, adnate to the petiole, free from each other. Leaves 11-16 cm long; petiole 3-4.5 cm long, densely covered with ascending hairs; leaflets 13-15 pairs, narrowly elliptic, obtuse, ca. 8 mm long and 4 mm wide, upper side glabrous, margin ciliate, lower side covered with spreading hairs. Inflorescent 4-5 flowered; peduncle 2-2.5 cm long, covered with ascending to spreading hairs, pedicel ca. 12 mm long, thin. Bracts linear, pilose. Calyx tubular, ca. 22-23 mm long, sparsely covered with long ascending hairs ca. 1.5 mm long; teeth subulate, ca. 5-6 mm long, pilose. Corolla glabrous, yellow; standard ca. 40 mm long, limb obovate, emarginated at the apex, at the base passing to a long claw; wing 35 mm long; limb narrowly elliptic, ca. 14 mm long and 4 mm wide, obtuse, auricle ca. 3.5 mm long; claw 23 mm long; keel ca. 32 mm long, limb oblique elliptic; claw 24 mm long. Ovary pilose, stipitate, stipe ca. 5 mm long. Pod unknown.

Type: Lorestan, 74 km. SW Khoramabad, Malavi, Pole Yavar, Rouzbehani & Mehrnia 812 (Holotype TARI).

Etymology: The name of species is based on the name of the area "Malavi in Lorestan province" where the plant was collected (fig. 2).

Flowering & fruiting: Flowering time is the end of April or beginning of May, fruiting time is in June.

Habitat: The new species grows in scattered *Quercus* woodland mixed with *Amygdalus arabica* Olivier on the dry sandy soils in sub-tropic climate.



Fig. 1: *Astragalus malaviensis*. A, habit of plant; B, flower.



Fig. 2: Distribution map of *A. malaviensis*.

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