

## NOTES ON THE TRIBE SOPHOREAE (PAPILIONACEAE) IN IRAN

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Reviewing the tribe *Sophoreae* in Iran, *Sophora mollis* subsp. *sylvestris* as a new subspecies is described from SW. and central Iran. It is distinguished from the other subspecies of *Sophora mollis* by having differences in vegetative and generative characteristics such as size, color and number of leaflet, hairs, petal size and finally fruit shape.

Moreover, *Ammodendron persicum* Bunge ex Boiss. as a forenamed species from flora of Iran had an incomplete botanical description which is revised and completed in present report. The study indicates that the species is an endemic shrub which is distributed on border region of Iran and Afghanistan located in East of Ghaen in Khorassan province and East of Khash in Sistan & Baluchestan province.

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بررسی قبیله *Sophoreae* (تیره پروانه‌آسا) در ایران

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قبیله *Sophoreae* در ایران مورد بررسی قرار گرفت. یک زیرگونه جدید بنام *Sophora mollis* subsp. *sylvestris* از مرکز و جنوب غرب ایران شناسایی گردید. این زیرگونه با دوزیرگونه دیگر گونه در داشتن برگ‌های مرکب فرد شانه‌ای به تعداد غالباً ۵ تا ۹ و به ندرت ۲ تا ۱۴ جفت برگچه سبز روشن و تقریباً هم‌رنگ و کرکدار در دو سطح و میوه کرکدار با ۴ بال مشخص متمایز می‌گردد.

همچنین، شرح گیاهشناسی گونه *Ammodendron persicum* Bunge ex Boiss. که قبلاً بصورت ناقص ذکر گردیده بود، کامل گردید. بعلاوه، این مطالعه نشان داد که هیچگونه اختلافی میان نمونه متعلق به نوار مرزی ایران و افغانستان در منطقه قائن (استان خراسان) و نمونه مربوط به منطقه خاش (استان سیستان و بلوچستان) وجود ندارد و لذا هر دو نمونه متعلق به یک گونه تحت عنوان *Ammodendron persicum* می‌باشند. بنابراین، گونه *A. conollyi* Bunge ex Boiss. از جنوب شرقی ایران، خاش، و با داشتن یک جفت برگچه نسبتاً پهن، معرفی گردیده است، در فلور ایران موجود نمی‌باشد. ضمناً نمونه تیپ گونه اخیر متعلق به آسیای مرکزی (ترکمنستان) است.

### Introduction

Reviewing the plant tribe *Sophoreae* for the Flora of Iran, a new subspecies of *Sophora mollis* (Royle) Baker in Hooker f. was identified which is described in present paper. Also *Ammodendron persicum* Bunge ex Boiss. as a forenamed species of Iran in Flora Iranica (Rechinger 1984) and Flora Orientalis (Boissier 1872) with imperfect description and uncertain localities, is identified carefully and its description is completed in this study.

***Sophora mollis* subsp. *sylvestris* M. Abbassi, subsp. nov.**

Frutex 0.5-1.5 m altus, ramis mollis, pubescentibus. Foliola (2-) 5-9 (-14) juga, (4-)8-13(-25) \* (3-)5-8(-20)

mm, concolora, sericea. Corolla lutea, fragrans; vexillum 13-18\*20-22 mm, ungue 5-7 mm longo, attenuato; alae 6-7\*8-21 mm, ungue 4-5 mm longo; carina 6-7\*16-18 mm, ungue  $\pm$ 5 mm longo. Leumen 4-6 mm longum, lomentaceum, moniliforme, qudrilatum, pubescens; semina saepe 1-2.

*Typus.* Chaharmahal Bakhtiari: SW Shahr-e Kord, between Dopolan and Dorak near Berenjegan. 1280 m. Abbassi & Amirabadizadeh. 6705 (holotypus TARI).

Shrub ca. 0.5-1.5 m. high. Leaves imparipinnate; leaflets 5-9 and rarely 2-14 pairs; blades (4-) 8-13 (25) \* (3-)5-8 (-20) mm. light green, same color on both surfaces in mature stage, covered with silvery appressed hairs; hairs after flowering in lower surface

denser than the upper one. Corolla yellow; petals fragrant; standard 20-22\*13-18 mm. in dimension, claw 5-7 mm. long, gradually attenuated downwards; wings 18-21\*6-7 mm. claw 4-5 mm. long; keels 16-18\*6-7 mm. claw ca. 5 mm. long. Fruit 4-6 mm. long, moniliform, hairy, with four wings, bearing mostly 1-2 seeds. Flowering season late winter to early spring.

World distribution: Endemic.

Iran distribution: Central and SW, in forests and mountain regions of mainly Zagros.

The subspecies is distinguished from the other subspecies of *Sophora mollis* i.e. subsp. *mollis* and subsp. *griffithii* (Stocks) Ali by having leaves with generally 5-9 and rarely 2-14 pairs of leaflets, leaflets hairy, light green and same color on both surfaces in mature stage, larger petals and hairy fruits with four wings.

#### ***Ammodendron persicum* Bunge ex Boiss.**

Shrub, up to 2.5 m. high; juvenile branches covered with silvery hairs; adult branches subglabrous, yellow to brownish yellow. Leaves 10-45 cm. long with a midrib ended to spine; leaflets mostly 2 and rarely 1-3 pairs, (7-)20-40\*1-2 mm. in dimension, ended to minute spine, linear-acicular, attenuated at the base, hairy on both surfaces; hairs silky-tomentose, mostly denser at lower surface; stipules 2, 1-10 mm. long spiny, deciduous. Inflorescence raceme, 3-7 cm. long. Pedicel up to 10 mm. long, hairy. Calyx 4-5 mm. long, shortly campanulate, hairy; teeth shorter than half of calyx tube. Corolla glabrous, violet; standard 6-7.5\*5.5-6 mm. in dimension, reniform, emarginated, reflexed; claw ca. 2.5 mm. long, attenuated gradually downward; wings 7-9\*4.5 mm., oblique rectangle,

auriculate; claw 2.5-3 mm. long; keels 8-9.5\*4-4.5 mm. in dimension. Stamens free, unequal, basifixed. Ovarium hairy with a short stalk; style curved; stigma nodal. Legumen 20-30 \* 5-15 mm. in dimension, flat, long elliptic, spiral, winged, yellowish brown, bearing 1-3 seeds. Seeds 4.5-5\*3-3.5 mm in dimension, oval to elliptic, asymmetric, glabrous, without appendages, light brown; hilum round, pit shaped, located on one side of ventral line.

Flowering season early to mid spring.

World distribution: Endemic.

Iran distribution: E and SE, in border regions of Iran and Afghanistan on sandy soils.

*Ammodendron conollyi* Bunge ex Boiss. is distinguished from *A. persicum* by having only a pair of leaflets which are broader. It was recorded from Balochistan province by Rechinger (1984). Specimens from this locality and the type locality of *A. persicum* were studied. They match very well and should be conspecific. Therefore, *A. conollyi* should be excluded for the flora of Iran and *A. persicum* is the only species occur in Iran. *A. conollyi* is restricted to Central Asia.

#### **Acknowledgment**

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#### **References**

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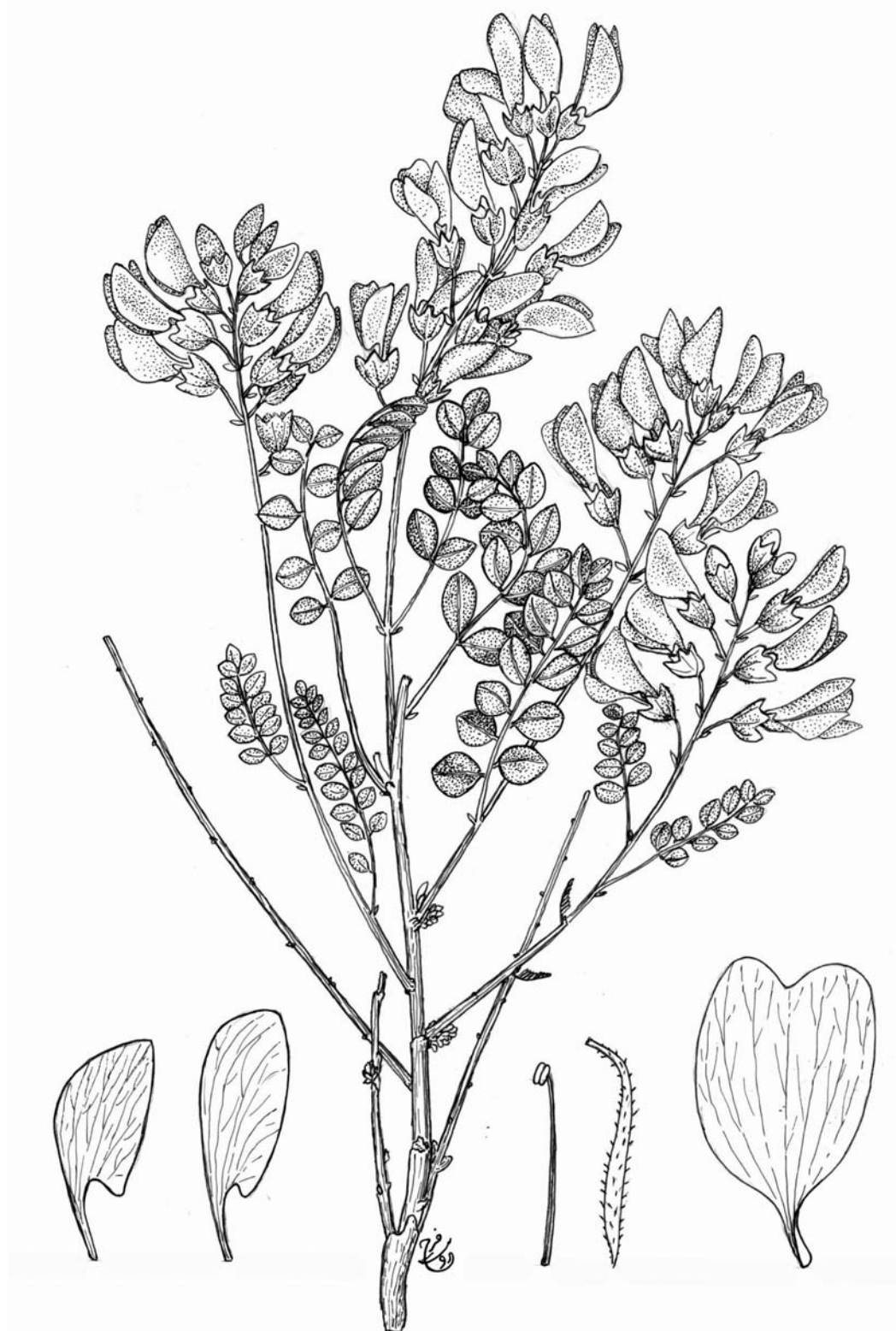


Fig. 1. *Sophora mollis* subsp. *sylvestris* (x1).