

# A NEW SPECIES OF THE GENUS *CROTALARIA* L. (PAPILIONACEAE) FROM SOUTH OF IRAN

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*Crotalaria assadii* Zaeifi is described from south of Iran. It is widely distributed along the coastal plains and dunes of Balouchestan and Hormozgan provinces and erroneously previously determined as *C. burhia* Buch. -Ham. ex Benth. in some herbaria. The new species differs from *C. burhia* in legume shape, size and indumentum as well as plant indumentum which will be described here.

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**Key words:** *Crotalaria*; Papilionaceae; new species; Hormozgan Province; Balouchestan Province; Iran

معرفی یک گونه جدید از جنس *Crotalaria* L. متعلق به تیره نخود از جنوب ایران

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گونه *Crotalaria assadii* Zaeifi به عنوان یک گونه جدید از جنوب ایران شرح داده می‌شود. این گونه بیشتر در دشتهای و تپه‌های ساحلی استانهای سیستان و بلوچستان و هرمزگان پراکندگی نسبتاً وسیعی داشته و در منابع و برخی هرباریومها قبلاً به اشتباه *C. burhia* Buch. -Ham. Ex Benth شناسایی شده است. گونه جدید با گونه *C. burhia* از نظر شکل، اندازه و کرک نیام و همچنین کرک و ظاهر گیاه تفاوت دارد.

## INTRODUCTION

*Crotalaria* L. is widespread in the tropics and subtropics, primarily of the southern hemisphere and contributes some 550 species, of which two species occur in Iran. In a revision of the Crotalarieae tribe of Papilionaceae in Iran, the specimens deposited in important Iranian herbaria were carefully studied. The specimens determined as *C. burhia* were obviously different from the species description. Further studies revealed that the erroneous determination was originated from Rechinger Flora Iranica no. 157 (Rechinger & Ali 1984) and followed by the other taxonomists. The new species shows some similarities with *Crotalaria burhia* Buch. -Ham. Ex Benth. in Hook. Rechinger & Ali (l. c.) recorded *Crotalaria burhia* from Iran based on two specimens that were carefully studied and the accuracy of the determination is not confirmed and in fact those specimens belong to the new species. The aims of this paper are to describe the new species, to illustrate it and to compare it with its close relative.

## New species

*Crotalaria assadii* Zaeifi, sp. nov. (fig1).

Syn.: *C. burhia* auct. Flora Iranica non Buch. –Ham. Ex Benth. in Hook. London Journ. Bot. 2: 474 (1872).

*Typus*: Iran. Balouchestan: ca. 160 km W. of Chahbahar between Zarabad and Kalat, ca. 30m, 11. 11. 1984, Mozaffarian, 52769 (holotypus TARI).

Small shrub, 30 to 60 cm high, shortly pubescent, gray, several branched; branches divergent, stout, spineless. Leaves mostly falling; remained leaves simple, 2mm long and 1mm wide, ovate, acute, shortly petioled up to 0.5mm long. Inflorescence simple raceme with 2 permanent and ca. 6 often falling flowers. Pedicel 4-6 mm long; bracts small 1mm long, ovate. Bracteoles 2, 1mm long, linear, close to calyx. Flowers ca. 8 mm long. Calyx ca. 8 mm long, 2 lobed; calyx teeth 5 to 6 mm long, equal, narrow triangular, acute. Standard 9mm long and 8 mm wide, rhomboid, obtuse, violet, with 2 mm long claw at base; limb with longitudinal veins, with 2 thick tubers on the upper

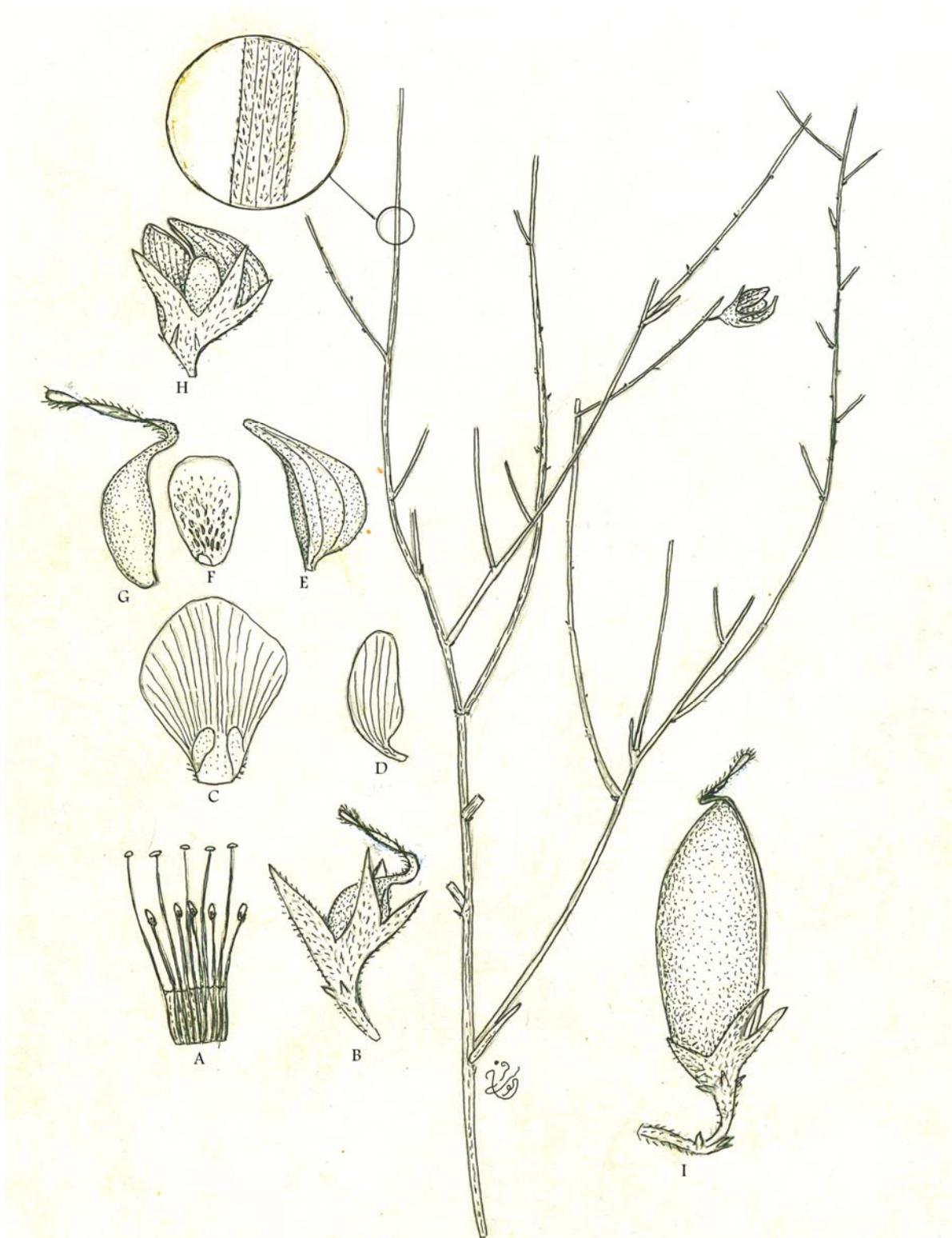


Fig. 1: *Crotalaria assadii* ( $\times 0/7$ ). A, stamens ( $\times 3.5$ ); B, calyx and ovary ( $\times 2.8$ ); C, standard; D, wing; E, keels ( $\times 2.8$ ); F, Seed ( $\times 5.6$ ); G, ovary ( $\times 3.5$ ); H, flower ( $\times 2.1$ ); I, legume ( $\times 1.4$ ).

surface at the base; claw villose at margin. Wings 6mm long, oblong, obtuse, yellow, with 2 mm claw at the base. Keel 8 mm long, attenuate at the upper half and with 45 degree angle to lower half, ciliate at lower part. Stamens 10, connate at lower third, unequal; long stamens ca. 10 mm long, with small anthers 0.5 mm long; short stamens ca. 7mm long, with 2mm anthers. Legume up to 17 mm long and to 6 mm wide, oblong, absolutely glabrous, 3 to 4 seeded, dehiscent. Style 5 mm long, with 90 degree angle to fruit, pilose at lower surface. Seeds 3mm long and 2 mm wide, broadly pyriform, dark brown with white crystals particularly at lower half.

Flowering and fruiting time: May, June and late autumn to early winter.

In this species legume is absolutely glabrous, up to 17mm long and up to 6mm wide, plant indumentum is short pubescent and directed upwards and pedicel is 4 to 5 mm long while in *Crotalaria burhia* legume is oblong, hairy, up to 9mm long and up to 4mm wide, plant indumentum is spread long pilose or is directed downwards and pedicel is shorter.

*Studied specimens:* Hormozgan: Jask, Iranshahr and Mousavi15444E 27009/4 Iran; Balouchestan: Chahbahar, between Pasabandar and Goater, 10m, Mozaffarian 52856; 160 km West of Chahbahar, between Zarabad and Kalat, 30 m, Mozaffarian 52769; Chahbahar, Beris, sea level, Mozaffarian 52827; Konarak, sea level, Mozaffarian 52781; Beris, Chahbahar, 21 km on Pasabandar road, 10 m, Foroughi 10697; Chahbahar, Tis, 10 m, Mozaffarian 53341; W. of Chahbahar, Pabot ps-32928867).

The species epithet is named in the honor of professor Assadi, the distinguished Iranian botanist.

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