

# TWO NEW RECORDS OF LOTUS (FABACEAE) AND PHALARIS (POACEAE) FROM IRAN

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Among the materials collected from Kurdistan and West Azerbaijan, two new records to Iran namely *Lotus aegaeus* and *Phalaris canariensis* were determined. The species are reported and illustrated in this paper. Descriptions of the species are presented.

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**Key words.** *Lotus aegaeus*, Fabaceae, *Phalaris canariensis*, Poaceae, new records, Kurdistan, Iran.

## Phalaris canariensis Lotus aegaeus

دو گونه *Lotus aegaeus* و *Phalaris canariensis* که اولی از استان آذربایجان غربی و دومی از استان کردستان و استان تهران جمع آوری شده‌اند برای اولین بار از ایران گزارش می‌گردند. تصویرگونه‌ها به همراه شرح آنها نیز تهیه شده و در این مقاله ارائه می‌گردد.

## Introduction

During the study of herbarium specimens in Kurdistan herbarium, two plants belonging to the genera *Lotus* and *Phalaris* seemed to be interesting. Further studies showed that the two species are *Lotus aegaeus* and *Phalaris canariensis*, none of them have formerly been recorded from Iran. In this paper the two species are reported, illustrated and described as new records to Iran.

**Lotus aegaeus** (Griseb.) Boiss. -Fig. 1.

West Azerbaijan: ca. 15 Km from Piranshahr to Sardasht, 1400 m. 09.06.2008, Maroofi & Karegar 8556.

Plant villous, perennial, erect, 25-36 cm. tall. Stem usually branched at the base. Leaflets 7-18×6-11 mm., rhomboid-obovate; uppermost often subacuminate; lower leaflets usually acute and broader; petiolules about 1 mm. long; rachis up to 3.5 mm. long. Stipules leaf-like, but smaller, broadly ovate-lanceolate, as long as the broad; the uppermost leaves rarely lacking the basal stipule-like pair of leaflets. Flowers large, pale yellow, (1-) 3-6 together on peduncles; peduncles 2.5-4 cm. long. Bracts 3 in number, smaller, equaling or

longer than the calyx, sometimes falling at flowering time. Pedicels very short or absent, villous. Flowers 17-19 mm. long. Calyx 7.5-9.5 mm. long, subcampanulate, glabrous or sparsely pubescent; teeth shorter or about as long as the tube, triangular-subulate, with long hairs at the margin. Corolla about twice as long as the calyx. Standard 18-19 mm. long, obovate, sometimes at the inner surface with purple veins, much larger than the wings and keel, entire and round at the apex, distinctly clawed (3-4 mm. long); claw broadly involute at the below margin; wings c. 14 mm. long; lamina obliquely ovate; claw short (3-3.5 mm. long); auricles broad and blunt; keel c. 12 mm. long, arched, with rather long beak; claw about 3 mm. long. Legume glabrous, 25-35×2.5-3.5 mm., straight, slightly torulose, rarely constricted by non-ripen seeds.

*Lotus aegaeus* is close to *Lotus gebelia*, but differs from it by having uniformly pale yellow flowers. Flowers in *Lotus gebelia* are variegated white or pale pink with the wings flushed with deep crimson-pink (Heyn 1970; Ball 1969). The species is distributed from Balkan to Turkey, northern Iraq to western Iran. The closest record of *L. aegaeus* to the Iranian gathering is in Turkey (Heyn 1970).



Fig. 1. *Lotus aegaus* ( $\times 0.74$ ); details ( $\times 1.4$ ).

**Phalaris canariensis** L. -Fig. 2.

Kurdistan: North-West of Sanandaj, Saral area, Hanaglan village, 2300 m, 28.05.2007, Mehdi Aslani 8333; Tehran: Karaj, Hasarak, 17.07.1962, 13387; Tehran: Karaj, Belghan, 28.05.2007, Solmaz Haidarinejad 8935.

Annual. Culms 25-56 cm. tall, more or less erect, usually branching at near the base. Leaf blades 11-20 cm. long and up to 8 mm. broad, long acute; sheath of terminal leaf inflated; ligule 2.8-4 mm. long. Panicle ovate to obovate-oblong, 1.8- 4×1- 2.2 cm.; spikelets with short pedicel about 1-2 mm. long. Glumes 6-7.5 mm. long, acute, whitish, with sparse hairs, broader at the upper half, with a green band along the wing; wing entire. Sterile spikelets usually smaller than the fertile spikelets, about 5 mm. long; fertile lemma 4.5-5.5 mm. long, subacuminate, adpressed hairy; sterile lemmas 2, subequal, acute, 2.5-3.5 mm. long, glabrous to sparsely hairy on the outer surface, hairy at the margin, acute. Anthers 3 mm. long.

*Phalaris canariensis* closely allied to *Phalaris brachystachys* Link, but differs from it by the two important characters: sterile lemma 2-3.5 mm. long and without tuft of hairs at the base of lemma in *Phalaris canariensis*. While sterile lemma shorter than 1 mm. long in *Phalaris brachystachys* and base of lemma with a tuft of hairs. *Ph canariensis* is mainly a Mediterranean element distributed from Canary Islands

through Mediterranean region to Turkey, Caucasus and Iran (Baytop 1985; Tutin 1980).

*Phalaris canariensis* was reported by Parsa (1950) from S-E of Balouchestan, but it is more probable that this report has been based on Flora of Balouchestan in Pakistan.

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Fig. 2. *Phalaris canariensis* ( $\times 0.38$ ); details ( $\times 4.5$ ).

