

NEW SPECIES AND NEW RECORDS OF THE GENERA GEUM AND POTENTILLA (ROSACEAE) FROM IRAN

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Geum iranicum is described from NE. Iran. A table is showing the differences of the new species with its affinity *G. kokanicum*. *Potentilla shiraziana* is described as a new species from S. Iran. *P. poteriifolia* is compared with the new species as its closest relative. *Potentilla agrimonioides*, *P. alexeenkoi*, *P. crantzii*, *P. discipulorum* and *P. rupestris* are reported as new plant records to Iran.

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گونه‌های جدید و اولین گزارش گونه‌هایی از جنس‌های *Potentilla*، *Geum* در ایران

از: محبوبه خاتم‌ساز

گونه جدید *Geum iranicum* بر مبنای نمونه‌ای از شمال شرقی ایران نامگذاری و شرح داده می‌شود، اختلاف این گونه با گونه مشابه آن یعنی *G. kokanicum* در یک جدول نشان داده شده است. همچنین، گونه *Potentilla shiraziana* به عنوان گونه‌ای جدید از استان فارس نامگذاری و شرح داده می‌شود. گونه *P. poteriifolia* نزدیک‌ترین گونه به گونه جدید شناخته شده و اختلافات آنها توضیح داده می‌شود.

گونه‌های زیر برای اولین بار از ایران گزارش داده می‌شوند

Potentilla agrimonioides, *P. alexeenkoi*, *P. crantzii*, *P. discipulorum*, *P. rupestris*.

Introduction

The author is studying *Rosaceae* family of the Iranian flora in the Herbarium of Research Institute of Forests and Rangelands. In the course of studies on the genera *Geum* and *Potentilla*, two new species and some new plant records were recognized from Iran. The new species are described and the new records are explained.

Geum iranicum Khatamsaz, sp. nov.
Subgen. *Orthostylus* (Fish. & C. A. Mey.) Bolle

Planta 5--12 cm alta, caulibus uni vel pluribus, hirsutis atque \pm glandulosis. Folia utrinque secus nervos densius appressim pilosa; basalia usque ad c. 7 cm longa, petiolis hirsutis glandulosis, lyrato-pinnata; pinnis lateralibus 4--12; terminalibus majoribus reniformicordatis, dentatis, leviter lobatis. Folia caulina ovata vel suborbicularia, saepe triloba, grosse dentata. Stipulae ovatae, incisae. Cyma 1--5-flora, cum calycibus hirsuta atque glandulosa, initio glomerata. Pedicelli usque ad c. 6 mm longi. Flores nutantes vel subnutantes, 8--16 mm diam. Calycis tubus late campanulatus. Calycis lobi 6--10x2--4 mm, ovati, apice dentati. Epicalycis lobi 6--8x1--3 mm, ovati, apice dentati. Petala calycem

superantia, 5--8x4--6 mm, obovata vel orbiculato-obovata, emarginata, albolutelescentia. Carpella immatura parva, 4--6, appresse hirsuta. Stylus subglaber, infra mediam articulatus; parte inferiore carpella brevior, apice non uncinatus; parte superiore fructo multo longiore, in fructo maturo deciduus (iam in flore supra ipsum germen constrictus).

Typus: Persia, Khorasan, ca. 45 km N. of Shirvan, Golool-Sarani Protected Area (EG3), 2300--3000 m, Assadi & Maassoumi 50439 (holotypus TARI).

Perennial, with one or more hairy \pm glandular stems, 5--12 cm high. Basal leaves lyrate-pinnate, ca. 7 cm, terminal leaflet large, reniform-cordate, lateral leaflets 4--12, much smaller. Cauline leaves few, small, ovate or suborbicular, often 3-lobed, large-toothed. Stipules ovate, incised. Flowers 1--5, crowded, on glandular-hairy peduncles and pedicels. Pedicels short up to 6 mm. Flowers nodding or subnodding, 8--16 mm diam. Hypanthium broadly campanulate. Sepals 6--10x2--4 mm, ovate, toothed at the apex, epicalyx as long as sepals, 6--8x1--3 mm, ovate, toothed at the apex. Petals 5--8x4--6 mm, longer than sepals, obovate or suborbicular, emarginate, yellowish white. Fruitlets very small, 4--6, appressed-hairy. Style



Fig. 1. *Geum iranicum* (x 0.8; flower x 1.5; young fruitlet x 3.3).

glabrous, with an articulation below the middle; lower joint of the style shorter than the fruit, not hamate; upper joint many times longer than the fruitlets, soon deciduous.

Diagnose. The most characteristic feature of the new species are in the fruitlets and glabrous style, with an articulation below the middle, the lower joint of the style shorter than the fruitlet and not enlarging in fruiting stage. It resembles in habit and shape of leaves to the *G. kokanicum* Regel & Schmalh. Differences between the two species are presented in table 1.

Potentilla agrimonioides M. B.

Azarbayejan: Kuh-e Sabalan, 2900 m, Assadi & Foroughi 13853.

Described from Caucasia, new to the flora of Iran.

Potentilla alexeenkoi Lipsky

Azarbayejan: Assalem to Khalkhal, 2300 m, Wendelbo & Assadi 27800.

New to the flora of Iran. Previously known from the Caucasia.

Potentilla crantzii (Crantz) Beck ex Fritsch

Tab. 1. Differences between *Geum iranicum* and *G. kokanicum*

<i>G. iranicum</i>	<i>G. kokanicum</i>
5—12 cm high.	15—45 cm high.
Basal leaves lyrate, up to 7 cm.	Basal leaves lyrate, 10—20 cm.
Inflorescence compact.	Inflorescence lax with strongly elongated branches.
Outer sepals large, ovate, dentate, as long as the inner.	Outer sepals linear-lanceolate, shorter than the inner.
Petals longer than the sepals.	Petals shorter than or as long as sepals.
Fruitlets very small 4—6 in number.	Fruitlets large 4—10 in number.
Style with an articulation below the middle.	Style with an articulation in the middle.
Lower joint of the style shorter than the fruitlet, not elongating in fruit.	Lower joint of the style longer than the fruitlet, elongating in fruit.

Gilan: Assalem to Khalkhal, 1900 m, Wendelbo & Assadi 27788; Heroabad, Kuh-e Almas, 2350 m, Makouii 9961. Not included by Schiman-Czeika (1969) in Flora Iranica, but it was mentioned in the distribution of the species from Iran by pesmen (1972, p. 61) in Flora of Turkey and yuzepchuck (1941, p. 150) in Flora of the USSR.

Potentilla discipulorum Davis

Azarbayejan: W. of Urmia, Targevar valley, 2000 m, Runemark & Froughi 19792; Urmia, 2600 m, Mohsenian 25216.— Lorestan; 61 km on road from Aligodarz to Shoulabad, 2400 m, Runemark & Lazari 26220; The pass 58 km on road from Aligodarz to Shoulabad, 2800 m, Runemark & Lazari 26516.

It was originally described from E. of Turkey, where it was supposed to be endemic by Pesmen l. c. p. 66, but now its distribution extends to N. W. and W. Iran.

Potentilla rupestris L.

Mazandaran: 4 km SW. of Javaherdeh, N-exposed slope, 2500–2300 m, Runemark & Maassoumi 20891.

Euro-Sib. element distributes from Europe through Caucasia and Turkey to

N. Iran.

Potentilla schiraziana Khatamsaz, sp. nov.

Sect. *Rupestris* (Wolf) Grossh.

Caudex caespitosus, ramosus, caules floriferi erecti vel \pm ascendentes, 29–40 cm alti, viriduli, superne vel interdum a dimidio ramosi, pilis subappressis. Folia radicalia pinnata, 10–20 cm longa. Foliola 5–7 juga, late obovata, basi sessilia vel breviter petiolulata; usque ad 30 x 20 mm, laxe pilosa, irregulariter incisa; segmentis inaequilongis, supra et subtus viridia. Folia caulina magnis pinnatisecta. Inflorescentia laxe paniculata. Flores saepe longe pedicellati, 10–12 mm diam. Sepala externa minima, lanceolata; interna longiora, ovato-aristata. Petala lutea, obovata, calycem \pm aequilonga. Antherae \pm ellipticae. Stylus subbasalis \pm filiformis, carpello maturo paulo longior. Stigma paulo dilatatum.

Typus: Persia, prov. Fars, Shiraz, Dasht-e Arjan, old road to Kazeron, 2050 m, 29.5.1975, Foroughi 17525 (holotypus TARI).

Perennial, erect or ascending, sparsely hairy, 20–40 cm high, greenish. Leaves pinnate, up to 10–20 cm long, with 5–7 pairs of leaflets. Stipules broadly auricled.

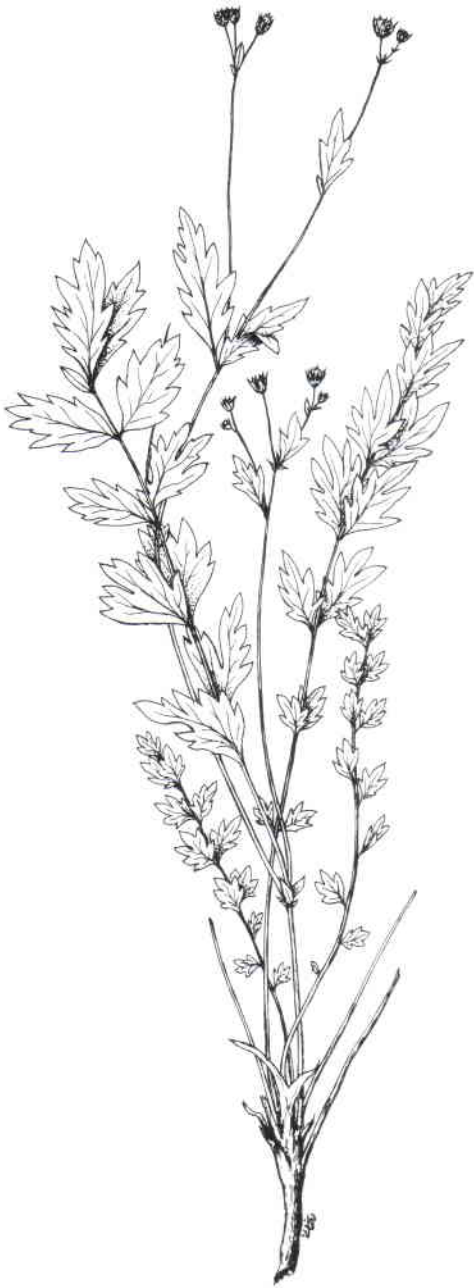


Fig. 2. *Potentilla shiraziana* (x 0.6).

ed, up to 10–15 mm long. Leaflets with unequal teeth, up to 30x20 mm, green on both sides, pilose. Inflorescence laxe, paniculate. Flowers often with elongated pedicels, 10–12 mm in diameter. Calyx large; outer sepals lanceolate, half as long as the ovate-aristate inner sepals. Petals as long as sepals, obovate, yellow. Achenes glabrous. Style sub-basal, \pm filiform, longer than achene. Stigma widened.

P. shiraziana can be easily distinguished from its closest relative *P. poteriifolia* Boiss. by its larger habit to 20–40 cm, more numerous pairs of leaflets (5–7), larger leaflets, larger inflorescence, obovate petals and ovate-aristate inner sepals. In *P. poteriifolia* Boiss. plants to 3–9 cm high, leaflets 3–5 pairs, petals spatulate-unguiculate and inner sepals triangular.

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