

NEW SPECIES AND NEW PLANT RECORDS FROM IRAN

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Halanthium alae flavum and *Halotis pedunculata* are described as new species from Iran. *Campanula coriacea*, *Centranthus longiflorus* Steven subsp. *longiflorus* and *Senecio doriiformis* DC. subsp. *doriiformis* are reported as new records to Iran.

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گونه‌ها و گزارش گیاهان جدیدی از ایران
مصطفی اسدی

گونه‌های *Halotis pedunculata* و *Halanthium alae flavum* به‌عنوان گونه‌های جدید نامگذاری و شرح داده می‌شوند.

گیاهان زیر برای اولین بار از ایران گزارش داده می‌شوند.

Campanula coriacea, *Centranthus longiflorus* subsp. *longiflorus*, *Senecio doriiformis* subsp. *doriiformis*.

INTRODUCTION

Revising *Chenopodiaceae* family for the Flora of Iran revealed 2 new species in the genera *Halanthium* and *Halotis*. These new species are described. Also, 3 species which have been collected from different areas of Iran are recorded for the first time for flora of Iran.

NEW SPECIES

***Halanthium alaeflavum* Assadi, sp. nov.**

Planta annua, 20-40 cm alta, tota ramosa, glauco-grisea. Folia usque ad 2 cm longa, alternata, apprime media et supera recurva, mucronata, teretia vel semiteretia, \pm canaliculata; folia floralia ad bases dilatata, triangulo-lanceolata. Flores in ramis laxis et spiciformibus usque ad 15 cm longis. Bracteolae 6-8 mm longae, a foliis florum aequalibus vel vix brevioribus, lanceolatae, mucronatae. Perianthi segmenta 5, 6-8 mm longa, lanceolata; bini exteriora \pm plicata, acuta, 3 nervia, in statibus fructiferis distincte alata; alae suborbiculares, ca. 10 mm diametris, aureae; bini interiora uninervia; alia obscure 3-nervia et breviter

alata. Stamina 5; antherae 3.5 mm longae, supra media fissae; appendices subsessiles vel breviter stipitatae, globoso-obovatae, aureae. Stylus 1.5 mm longus. Stigma 3 mm longum. Embryo verticalis,

Typus. ca. 11 km from Maraghe to Bonab, 1450 m, 30.9.1987, Assadi & Akhane 61296. (holotypus TARI)

Annual, 20-40 cm high, grey glaucous, \pm totally tomentose, branched from base. Leaves to 2 cm long, gradually decreasing in size upwards, alternate, mucronate, terete or semiterete, \pm canaliculate, especially middle and upper leaves recurved; floral leaves broadened at base, triangular-lanceolate. Flowers on lax spiciform branches up to 15 cm long. Bracteoles 6-8 mm long, equal or shorter than floral leaves, lanceolate, mucronate. Perianth segments 5, 6-8 mm long, lanceolate; 2 outer segments \pm plicate, acute, 3 nerved, distinctly winged in fruiting stage; wings suborbicular, ca. 10 mm in diameter, golden yellow and attached to the middle of segments, 2 inner segments obtuse or rounded, 1-nerved, wingless; the other inner segment obscurely 3-nerved and shortly winged. Stamens 5; anthers 3.5 mm long, cleft to above the middle; appendages

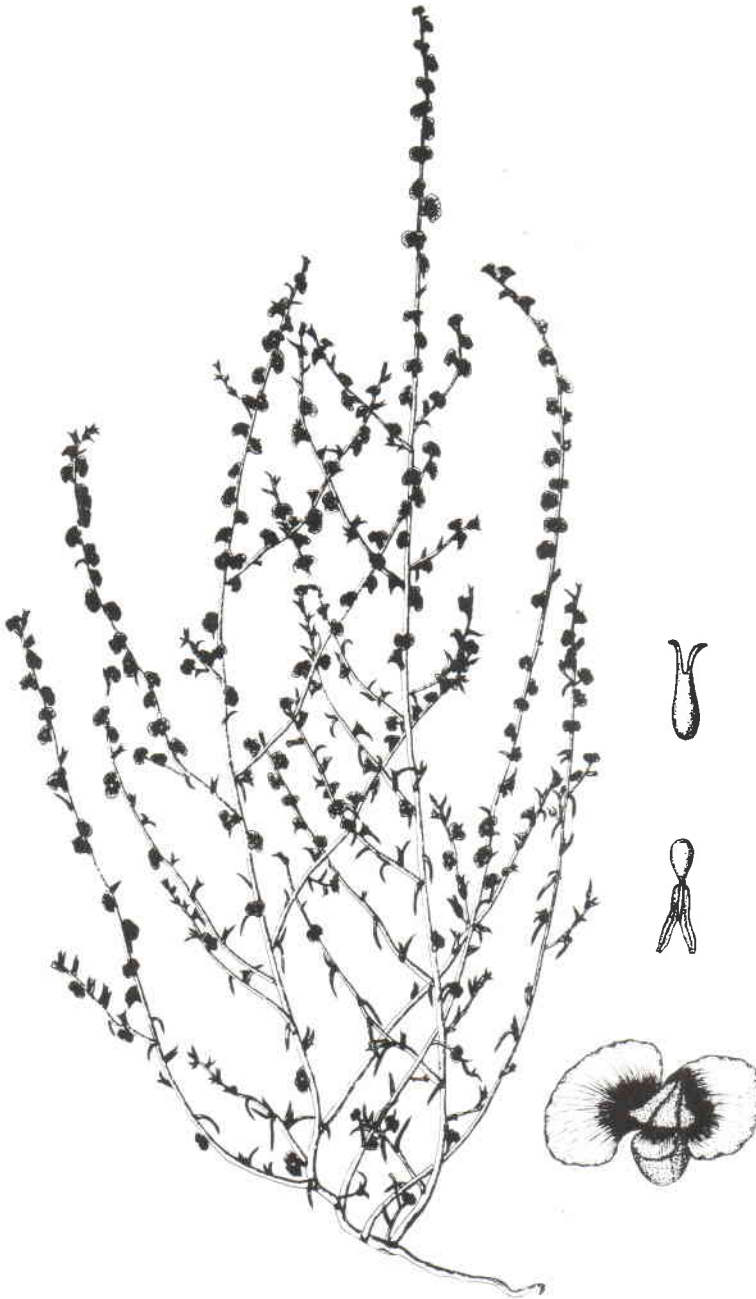


Fig. 1. *Halanthium alae flavum* Assadi (x 0.5; fruit x 4.6; anther x 5; ovary x 5)

± sessile or shortly stipitate, globular-obovate, golden yellow. Style 1.5mm long. Stigma 3 mm. Embryo vertical; radicle pointing upward.

The new species is characterized by grey-glaucous and very fleshy habit, golden yellow wings, sessile and yellow anther appendages. It differs from *H. kulpianum* C. Koch in having yellow fruit wings and yellow anther appendages.

The new species differs from *H. rarifolium* C. Koch in ± sessile anther appendages. In *H. rarifolium* appendages well stipitate.

***Halotis pedunculata* Assadi, sp. nov.**

Planta annua, 15-30 cm alta, ramosa, griseo-argentea, in partem pubescentia, radice crassa et lignosa. Folia 2-3(5) cm longa, cylindracea vel cylindraceo-canaliculata, acuta, ad basem dilatata et semiamplexicaulia; folia superiora breviora. Flores singuli aut bini, pedunculati; pedunculi usque ad 1 cm longi. Bractea 8-10 mm longae, semicylindracea, obtusae. Perianthi segmenta 5, ca. 9 mm longa, lanceolata, obtusa, in dimidio inferiore coriacea, superiore membranacea;

perianthia bini exteriore obselete 3-nervia, extus projectis ornatis, glabra vel supra projectas sparse pilosa. Anthera usque ad medium fissa; appendices purpurea vel subrosea, ca. 3 mm longa (stipite incloso), globoso-obovata; stipes appendice 3-polo breviora. Embryo verticalis. Stylus stigmatum duplo longiora.

Typus. 8 km from Bastak to Bandar-e Lengeh, 800 m, Assadi & Akhane 61930. (holotypus TARI); 170 km from Bandar Abbas to Lar, 450 m, Foroughi & Assadi 15064; Bushehr. 15 km NW. of Ganaveh, 30 m, Bokhari et al. 14803.

Annual, 15-30 cm high, branched from base, greyish-silvery, partly pubescent, root thick and woody. Leaves 2-3(5) cm long, cylindrical or cylindrical-canaliculate, acute, dilated and semiamplexicaule at base; upper leaves shorter. Flowers on peduncles to 1 cm long, 1 or 2 and then subtended by 2 leaves which are connate at base. Bracts 8-10 mm, semicylindric, obtuse. Perianth segments 5, to 9 mm long, lanceolate, obtuse, lower half hard and leathery, upper half membranaceous; 2 outer segments with 3 indistinct nerves and small projections on the back side, glabrous or with scattered hairs above the projections. Anthers cleft

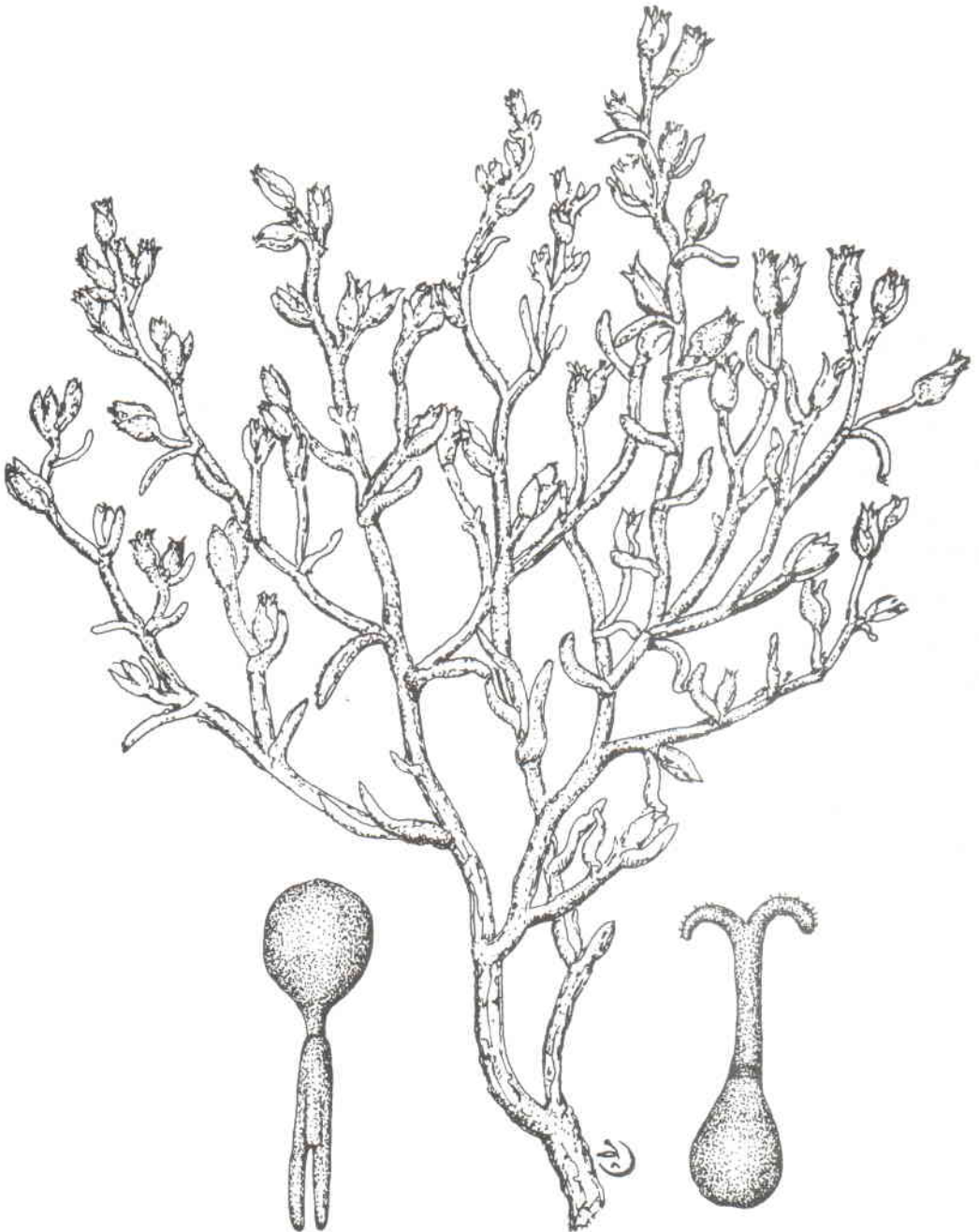


Fig. 2. *Halotis pedunculata* Assadi (nat. size; ovary x 7; anther x 7)

to the middle; appendage including stipe ca. 3 mm long, purple or pale pink, globose- obovate; stipe one third of appendage. Embryo vertical. Styles 2 times longer than the stigma.

The new species is related to *H. occulta*, but differs from it in having following characters. Habit more vigorous, 2 outer perianth segments horned, anther appendix distinctly stipitate, anther cleft to the middle, bracts not gibbose at the base, root thick and woody. in *H. occulta*, root thin and filiform, 1 or rarely 2 outer perianth segment horned, anther appendage sessile, anther cleft to above the middle and bracts gibbose at the base.

NEW RECORDS

Campanula coriacea Davis

Azarbayejan: ca. 70 km W. of Khoy, mountains above the village Razi, in crevices of rocks, 2200- 2250 m, Assadi & Olfat 68897.

This species was described from NE.

Turkey and supposed to be an endemic Ir. Tur. element in that area (cf. Damboldt 1978 p. 30). This collectoin is from a place very close to the type locality in the Iranian side of Turkish border.

It is a saxicole plant growing in crevices of rocks. No type material of the species was seen, but this specimen was compared with the illustration and the description of the species (Davis 1962). Anyhow, in spite of minor differences, they should be identical.

Centhranthus longiflorus Steven subsp. **longiflorus**

Azarbayejan: 33 km from the village Razi on the road to Khoy, 1550 m, Assadi & Olfat 68921.

A new record for Iran. This species was described from Caucasus, circa Tiflis. Richardson (1976, p. 266) in his revision on the genus recognized 4 subspecies for it, this subspecies was distinguished from the other subspecies by having obtuse or subacute lanceolate leaves rarely broader than 2 cm. Distribution of the subspecies is said to be Caucasus, Turkey, Lebanon and adjacent Syria. Distribution of other

subspecies are from NW. Africa, SE. Europe and Balkan Peninsula. The closest locality to this collection is in Turkey close to the Persian border.

It is a tall plant reaching to 1.5 m high in the area. Corolla tube ca. 18 mm.

Senecio doriiformis DC. subsp. **doriiformis**

Azarbayejan: 15 km from main road of Maku- Bazargan toward Kelisa-Kandi, 1800 m, Assadi 70834.

A new record for Iran. *S. doriiformis* originally was described from N. Iraq. This subspecies in Flora Iranica (cf. Nordenstam 1989, p. 65) is known only from Iraq. But the new collection extends its distribution to NW. Iran as well. It differs from the

other subspecies, namely subsp. *orientalis* (Fenzl) Mattews mainly in the shape of upper cauline leaves. Elliptic-ovate and obtuse in this subspecies, but lanceolate and acute to acuminate in subsp. *orientalis* which has been recorded from W. Iran.

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