

# A new annual species of *Senecio* from Iran

B. NORDENSTAM\*, M. MOUSSAVI<sup>+</sup> & B. DJAVADI<sup>+</sup>

\*Department of Phanerogamic Botany, Swedish Museum of Natural History  
P.O. Box 50007, SE-104 05 Stockholm, Sweden

<sup>+</sup>Department of Botany, Plant Pest & Diseases Research Institute  
P.O. Box 1454, 19395 Tehran, Iran

## Abstract

The new annual species *Senecio eligulatus* B. NORD., MOUSSAVI & DJAVADI (Compositae-Senecioneae) is described from southern Iran. Distinctive characters are the disciform capitula with shortly tubular marginal female florets and the purplish involucre and calyculus bracts without black tips.

## Introduction

In the Flora Iranica area annual or biennial species of *Senecio* L. sect. *Senecio* are represented with eight species, seven of which have hitherto been recorded from Iran (NORDENSTAM 1989). Three of these are endemic to Iran, apparently rare and with a restricted distribution, viz. *S. vulcanicus* BOISS., *S. iranicus* B. NORD. and *S. kotschyanus* BOISS. The two former are known from mountain regions of north and central Iran, both growing on the volcano Damavand in the Elburz Mountains. *S. kotschyanus* was recently rediscovered in south Iran, previously only known from the type collection (MOUSSAVI et al. 2001).

In this paper we describe a new annual species, which so far has been collected only once in southern Iran.

## Description and Discussion

*Senecio eligulatus* B. NORD., MOUSSAVI & DJAVADI, sp. nov. (sect. *Senecio*)

Type: Persia, Kerman: Jiroft, Baft, Hanza Bondar Takht-e Sar-Tashtak, 3200–3600 m, 10.IX.1994, FATEHI 15586-IRAN (IRAN holotype, S isotype). – Figs. 1–2.

Herba annua 10–25 cm alta ramosa pilis multicellularibus articulatis imprimis in pedunculis et in involucre obsita. Folia caulina sessilia ambitu oblonga vel oblanceolata pinnatilobata, lobis utrinque 2–3 oblongis dentatis; folia margine saepe  $\pm$  revoluta. Capitula pauca vel plura brevi-pedunculata corymbosa heterogama



disciformia, floribus flavis. Involucri phylla uniseriata 11–13 lineari-lanceolata acuta vel acuminata; calyculi phylla 5–9 subulata viridia vel purpurascentia. Flores marginales pauci feminei; corolla brevis tubulosa anguste cylindrica glanduloso-puberula, apice truncata et minute 2–3-fida. Flores disci numerosi hermaphroditi, corolla anguste campanulata 5-loba, lobi triangulari-ovati. Antherae appendice anguste oblonga obtusa incluso c. 1 mm longae, basi obtusae ecaudatae. Styli rami lineares, apice truncati minute papillati, pilis everrentibus paucis breves. Cypselae anguste elliptico-oblongae costatae puberulae. Pappi setae numerosae albae caducae.

Annual branching herb 10–25 cm high, erect or branches somewhat ascending, laxly pubescent with articulate multicellular hairs especially on involucre and peduncles. Leaves cauline, alternate, sessile, oblong or oblanceolate in outline, 2–5 cm long, 1–2 cm wide, pinnatilobate with dentate lobes, herbaceous, flat, basally half-clasping and somewhat auriculate with dentate auricles; margins somewhat revolute. Capitula several, corymbose, heterogamous, disciform; peduncles 5–12 mm long. Involucre cup-shaped; phyllaries uniseriate, 11–13, linear-lanceolate, 5–8 mm long, c. 1 mm wide, 2–3-veined, acute–acuminate, with a purple tinge at least on veins; calyculus bracts 5–9, subulate or narrowly linear-filiform, acuminate, 1–2 mm long, greenish-purplish. Marginal female florets few; corolla reduced to a narrowly cylindrical tube c. 1.5 mm long, sparsely glandular-puberulous with short hairs, apically truncate and minutely 2–3-fid. Style c. 3.5 mm long with branches linear, c. 1 mm long, obtuse. Cypsela narrowly elliptic-oblong, c. 2 mm long, c. 10-nerved or -ribbed, greenish or light brownish, glandular-puberulous with short appressed hairs. Pappus bristles numerous, c. 4 mm long, very fine and slender, only minutely barbellate, white, caducous. Disc florets numerous, perfect, yellow. Corolla basally tubular, becoming narrowly campanulate upwards, c. 4 mm long, 5-lobed; lobes deltoid-ovate, 0.5–0.6 mm long, apically subcucullate and minutely papillate, with faint traces of median resin ducts and fine lateral veins continuing down the corolla from the sinuses. Anthers small, c. 1 mm long incl. the narrowly-oblong obtuse appendage, base obtuse, ecaudate; filament collar narrowly ‘balusterform’. Style branches linear, 0.8–1 mm long, apically truncate and minutely papillate and with only few short lateral sweeping-hairs; stigmatic areas narrowly separated. Cypselas narrowly elliptic-oblong, c. 2 mm long, c. 10-ribbed, brownish, puberulous with subappressed short hairs. Pappus bristles numerous, equalling corolla in length, white, slender, caducous.

Only known from the type collection.

This new species has somewhat the looks of *S. sylvaticus*, an annual species widespread in Europe and West Asia although not known from Iran. In *S. sylvaticus* the marginal female florets are ligulate with short rays more or less rolled back. The disciform capitula of our new species, with shortly tubular pistillate marginal florets, inspired the epithet ‘*eligulatus*’ and serve to characterize the species as distinct from



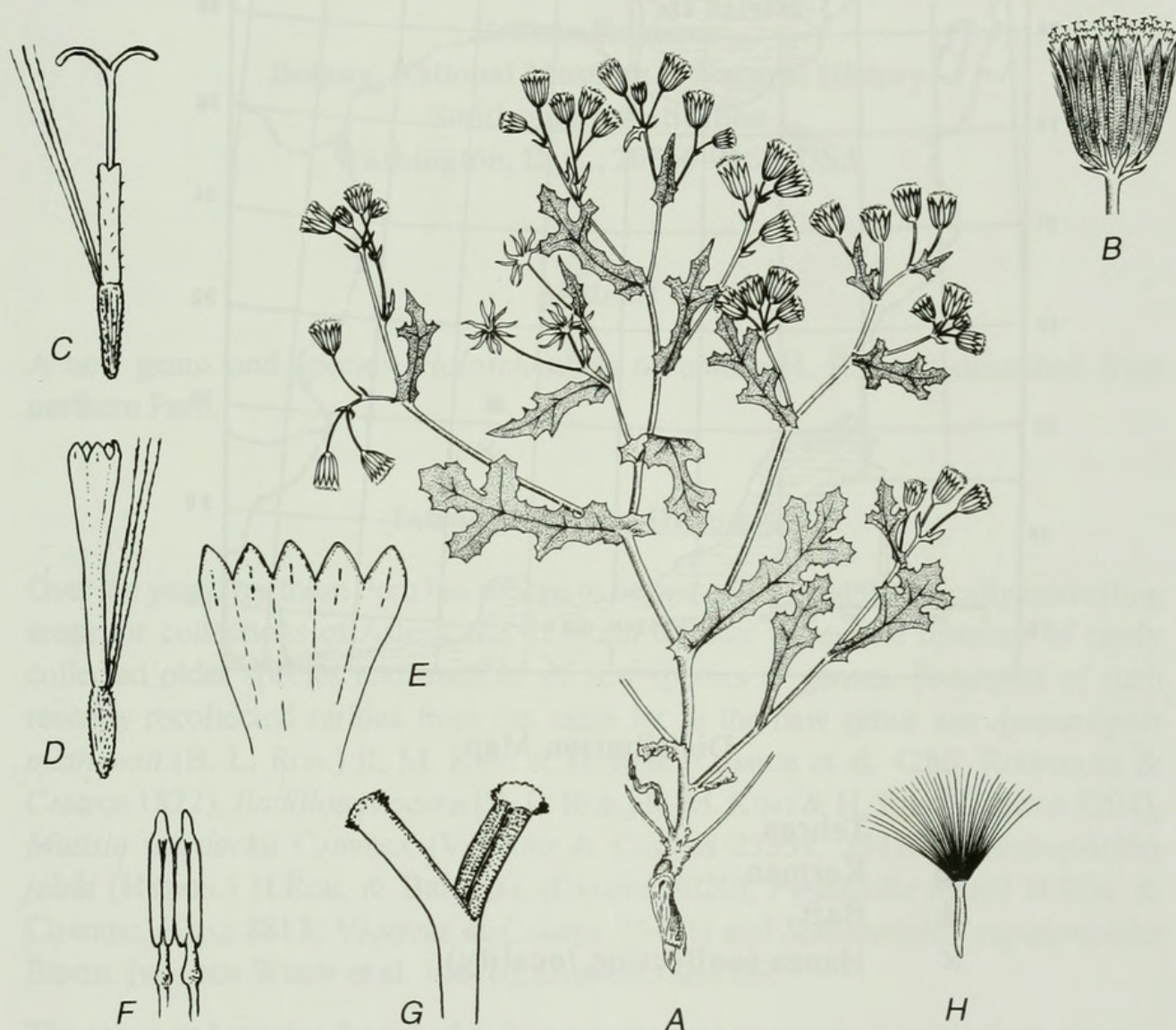
other members of sect. *Senecio*. A possible relative is *S. dubitabilis* C. JEFFREY & Y. L. CHEN, which has not yet been recorded from Iran but occurs in adjacent countries. The latter is however truly discoid, lacking female marginal florets. *S. eligulatus* seems to be another locally endemic Iranian species of *Senecio*, clearly distinct from those previously known, i.e., *S. vulcanicus*, *iranicus* and *kotschyanus*.

### Acknowledgement

We thank Mr. M. MEHRANFARD, artist of the IRAN Herbarium, for the drawings of habit, capitulum and cypsela (Fig. 1 A, B, H).

### References

- MOUSSAVI, M., DJAVADI, B. & B. NORDENSTAM 2001. Rediscovery of *Senecio kotschyanus* in Iran. *Comp. Newsl.* 36: 77–80.
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**Fig. 1. *Senecio eligulatus* B. NORD., MOUSSAVI & DJAVADI (holotype).**

A. Habit,  $\times \frac{1}{2}$ .

B. Capitulum,  $\times 2$ .

C. Marginal female floret,  $\times 5$ .

D. Hermaphroditic disc floret,  $\times 5$ .

E. Corolla of disc floret, laid out,  $\times 8$ .

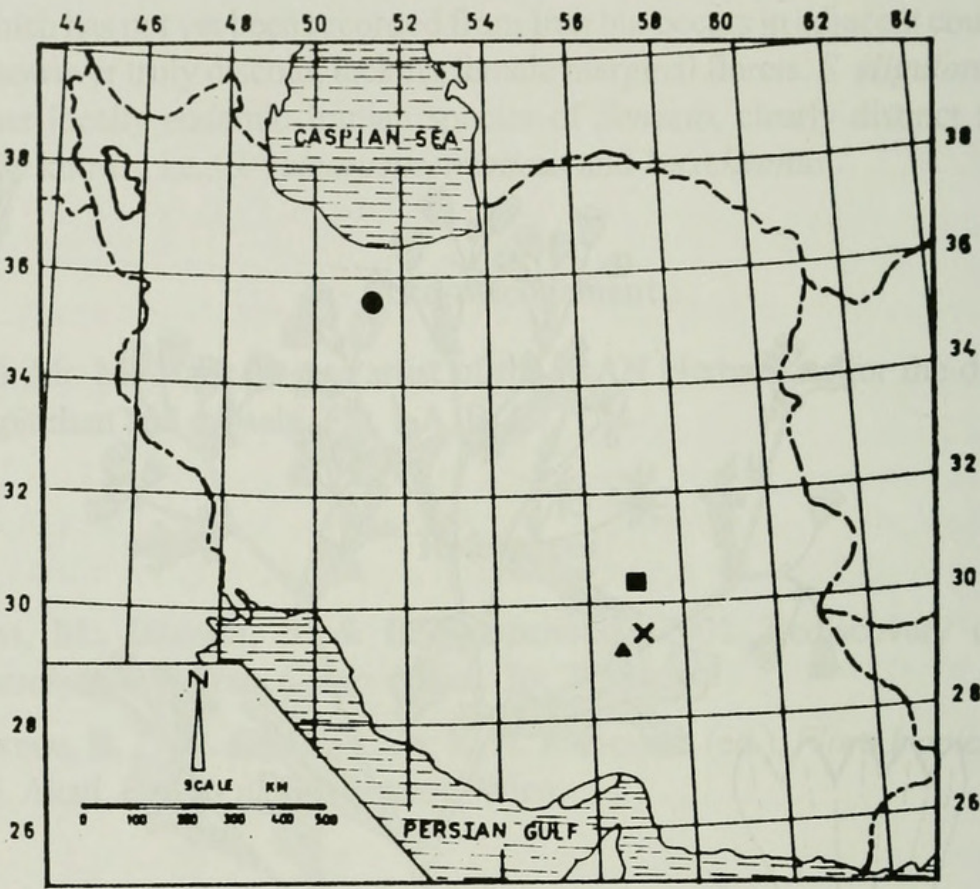
F. Anthers,  $\times 12$ .

G. Style branches of disc floret,  $\times 12$ .

H. Cypsela with pappus,  $\times 3$ .

Del. M. MEHRANFARD (A, B, H) and B. NORDENSTAM (C–G).





Distribution Map

- Tehran
- Kerman
- ▲ Baft
- × Hanza (collecting locality)

Fig. 2. Location of *Senecio eligulatus* B. NORD., MOUSSAVI & DJAVADI.



Nordenstam, Bertil, Moussavi, Mahmoud, and Djavadi, B. 2002. "A new annual species of Senecio from Iran." *Compositae newsletter* 38, 42–46.

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