Senecio nemiae (Asteraceae, Senecioneae), a New Species from Sierra Grande in Patagonia (Argentina)

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Abstract. A new species, *Senecio nemiae*, from Sierra Grande, Río Negro, Argentina, is described and illustrated. *Senecio nemiae* most closely resembles *S. adenotrichius* from Chile, but is clearly different by the shorter leaves without auricles and smaller capitula, with a calyculus of few bracts and length shorter than the involucre. A new status, *Senecio* sect. *Senecio* ser. *Corymbosi* subser. *Adenotrichi*, is also proposed to accommodate this taxon in the previous classification of *Senecio* for Argentina. Included is a key to those species of *Senecio* subser. *Adenotrichi* with glabrous achenes.

Key words: Argentina, Asteraceae, Compositae, Patagonia, *Senecio*, Senecioneae.

Senecio L. has been subject to diverse taxonomic interpretations varying from a single, broad genus (Barkley, 1985) to numerous segregate genera (e.g., Nordenstam, 1978; Robinson & Bretell, 1973, 1974; Jeffrey, 1992). These new taxa were established based on microfeatures such as stylar appendages, stigmatic surfaces, shape of filament collars, anther apex, anther base, and endothecial tissue (Wetter, 1983; Vincent, 1996).

In the present paper, *Senecio* is treated in its wide concept, containing about 3000 species worldwide, with the most diversity in the mountainous areas or deserts of southern South America, tropical South Africa, as well as central and eastern Asia. *Senecio* s.l. includes monoecious herbs, subshrubs, shrubs, vines, and small trees, with capitula radiate, discoid, or rarely disciform; phyllaries of equal length in one row, usually subtended by a calyculus; ray florets, if present, female with ligulate or short filiform corollas; disc florets hermaphroditic with tubular 5-dentate or 5-lobed corollas; the anthers ecaudate or slightly tailed, filament collar slender or dilated; pappus of many slender and scabrid bristles, and achenes 5- to 10-ribbed, glabrous or pubescent.

On a regional basis, a large number of species of *Senecio* has been treated by Cabrera in southern South America, i.e., 208 from Chile (Cabrera, 1949), 90 species from Brazil, Paraguay, and Uruguay (Cabrera, 1957), and 114 from Bolivia (Cabrera, 1985). In Argentina *Senecio* is represented by 266 native species, arranged in 3 sections and 16 series, with 114 species endemic to this country (Cabrera et al., 1999). Since the publication of this treatment for Argentinian species, only one new species was added (*S. calingastensis* Tombesi, 2001).

The new species described here belongs to section *Senecio*, series *Corymbosi*, which is characterized by the capitula disposed in terminal corymbs and leaves sessile, attenuate into a pseudopetiole or auriculate at the base. We include it within the subsection *Adenotrichi*, established by Cabrera (1949) for Chilean species of the genus, not cited until now for Argentina. We propose the following new status to accommodate this taxon in the classification sustained by Cabrera et al. (1999).

Senecio sect. **Senecio** ser. **Corymbosi** subser. **Adenotrichi** (Lindley) A. Bartoli, Tortosa & S. E. Freire, stat. nov. Basionym: *Adenotrichia* Lindley, Bot. Reg. 14: 1190. 1828. *Senecio* subsect. *Corymbocephalus* subsect. *Adenotrichi* (Lindley) Cabrera, Lilloa 15: 380. 1949. TYPE: *Senecio adenotrichius* DC.

The subseries *Adenotrichi* within *Senecio* appears to be closely related to series *Corymbosi* subser. *Viscosi*. Both subseries share glandular pubescence, whereas the rest of the subseries of series *Corymbosi* include species either tomentose or glabrous. Subseries *Adenotrichi* differs from subseries *Viscosi* in having deeply lobed to pinnatisect leaves (vs. entire, crenate, or serrate leaves). In addition, subseries *Viscosi* ranges from Brazil to northeastern Ar-

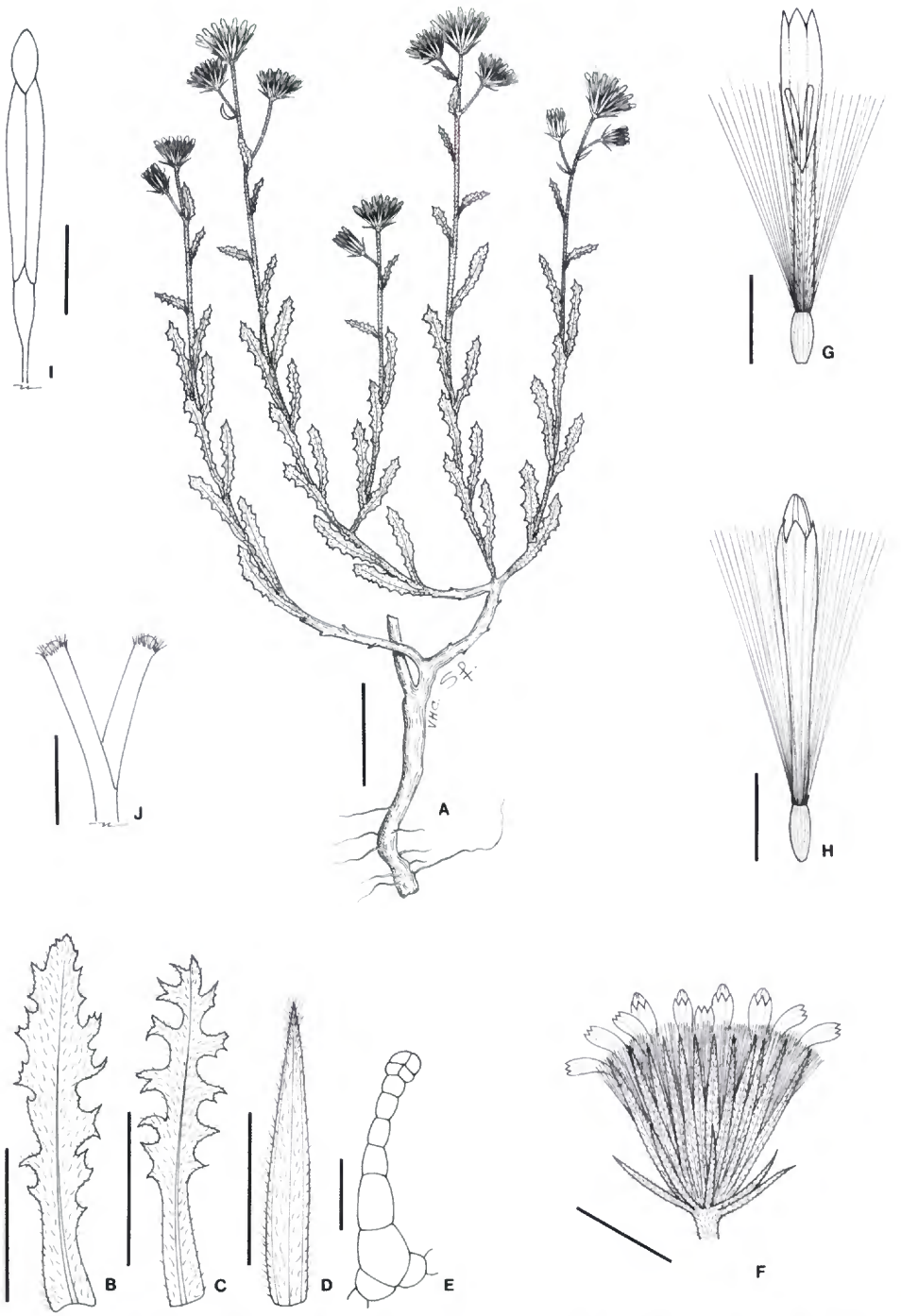

Figure 1. *Senecio nemiae* A. Bartoli, Tortosa & S. E. Freire. —A. Habit. —B, C. Leaves. —D. Phyllary. —E. Trichome. —F. Capitulum. —G. Ray floret. —H. Disk floret. —I. Anther. —J. Style branches. Scale bars: A = 3 cm; B–D = 1 cm; E = 0.1 mm; F = 5 mm; G, H = 2 mm; I, J = 1 mm. Drawn from holotype, *Correa et al. 7090* (BAB).

gentina, whereas subseries *Adenotrichi* occurs in Chile and is now reported from southern Argentina.

Senecio nemiae A. Bartoli, Tortosa & S. E. Freire, sp. nov. TYPE: Argentina. Rio Negro: San Antonio, Sierra Grande, 20 Oct. 1979, *Correa et al. 7090* (holotype, BAB). Figure 1.

Quoad formam foliorum, fabricam capitulorum et indumentum ad *Senecionem adenotrichium* accedit, sed ab ea differt capitulis, calyculo et foliis minoribus, bracteis involucri in numero minori, foliis non auriculatis et pilis capitatis brevioribus.

Shrublet 20–25 cm, much branched at the base, densely hirsute glandulose on stems, leaves, and phyllaries, with glandular capitate trichomes, mostly 0.5–0.8 mm long; stems ascending. Leaves alternate, sessile, deeply pinnatilobed, 2.5–4 × 0.4–0.6 cm, linear-elliptic, obtuse at the apex and slightly dilated at the base, margin often revolute, with midvein prominent, pubescent on both surfaces; lobes 5 or 6 at each side, irregularly dentate, acute and mucronate at the apex. Capitula 2 or 3 pedunculate, peduncles 1–2 cm long, arranged in terminal corymbs; involucre calyculate, cylindric, 8–9 × ca. 8 mm; phyllaries 28 to 30, linear ovate, 8–9 × ca. 1 mm, dorsally pubescent, apex acuminate with a tuft of short trichomes; calycular bracts ca. 9, linear, ca. 6 mm long, dorsally pubescent. Ray florets ca. 15, female, corollas yellow, ligulate, 3-dentate, ca. 6 mm long, the basal tube pilose, 2–4 mm long, the limb 3-dentate, ca. 4 mm long; disc florets ca. 50, hermaphroditic, corolla yellow, tubular, 5-lobed, ca. 7 mm long, glabrous, tube ca. 4 mm long, not basally broadened, limb narrowly campanulate, only slightly broader than the tube and not markedly distinct, throat ca. 2.2 mm long, lobes broadly triangular, ca. 0.80 mm long, at base 0.5–0.6 mm wide; anthers minutely tailed, ca. 3 mm long; filament collars balusterform, ca. 0.5 mm long; apical anther appendage ovate-lanceolate, ca. 0.4 mm long; the basal tails ca. 0.2 mm long. Style branches penicillate, ca. 1.5 mm long, apically truncate. Achenes oblong-obovate, glabrous, ca. 1.8 mm (immature length), slightly costate. Pappus bristles many, slender and scabrid, ca. 7 mm long, white.

The specific epithet honors Maevia Noemi Correa, Argentinian botanist, in recognition of her work as director of *Flora Patagónica*.

Distribution and habitat. *Senecio nemiae* is known only from Sierra Grande, in the political province Rio Negro of southern Argentina. Sierra Grande represents a mountain range of ca. 500 m altitude, at approximately 42º south latitude, and together with the Meseta de Somuncura constitutes a particular district of the vegetation of Patagonia since both regions contain a number of local endemics, e.g., *Adesmia serrana* M. N. Correa (Fabaceae), *Boopis raffaelli* Spegazzini (Calyceraceae), *Conyza magnimontana* Cabrera and *Senecio megaoreinus* Zardini (Asteraceae), and *Silene melanopotamica* var. *agrostophylla* Pedersen (Caryophyllaceae).

Senecio nemiae is closely related to *S. adenotrichius* DC. from Chile. Both species have deeply pinnatilobed leaves with dentate-acute lobes and ligulate corollas with trichomes on the tube. However, the new taxon has shorter leaves without auricles and smaller capitula with fewer phyllaries and calycular bracts.

Key to Species with Glabrous Achenes of *Senecio* sect. *Senecio* ser. *Corymbosi* subser. *Adenotrichi*

1a. Phyllaries few (ca. 13) . . *Senecio rivularis* J. Rémy
1b. Phyllaries numerous (ca. 30 to 40).
  2a. Leaves auriculate, 4–10 cm long; calyculus of many bracts as long as the phyllaries.
    3a. Leaves deeply lobed, lobes dentate-acute . . . . . *Senecio adenotrichius* DC.
    3b. Leaves lobed, lobes entire or dentate, obtuse to subacute . . . . . *Senecio murinus* Philippi
  2b. Leaves without auricles, 2.5–4 cm long; calyculus of few bracts shorter than the phyllaries . . . . . *Senecio nemiae* A. Bartoli, Tortosa & S. E. Freire

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