Senecio albaniae (Asteraceae: Senecioneae), a New Species from Central Peru

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ABSTRACT. A new species, *Senecio albaniae* (Asteraceae: Senecioneae), is described from central Peru. The species is characterized by its shrubby habit, decurrent leaf bases forming winged stems, and solitary capitula on elongated peduncles. The species is described and illustrated, and its possible relationships are discussed.

RESUMEN. Una especie nueva, *Senecio albaniae* (Asteraceae: Senecioneae), se describe del Peru central. La especie es caracterizada por su habito arbustivo, hojas decurrentes y tallos alados, capitulo solitario con pedúnculos 5–15 cm de longitud. Se describe e ilustra la especie, y discuto las relaciones potenciales de esta especie.

Key words: Andes, Asteraceae, Peru, *Senecio*, Senecioneae.

Senecio L. is an important genus of the South American Andes, which is a center of diversity for the genus. *Senecio* is found from coastal deserts to alpine habitats in the Andes. The genus is represented by ca. 180 species in Peru (Dillon & Hensold, 1993), several of which are endemic and of limited geographic distribution (Vision & Dillon, 1996). Recently two new species have been added (Beltran & Galan De Mera, 1997, 1998). A species of *Senecio* with decurrent leaf margins and winged stems was discovered among unidentified Senecioneae housed at the Herbarium of the Universidad de San Marcos in Lima (USM). Subsequent field studies in the approximate region of the first collection confirmed the species as new.

Senecio albaniae H. Beltran, sp. nov. TYPE: Peru. Lima: Huarochiri, San Pedro de Casta, Mashca, Camino del pueblo San Pedro de Casta hacia Marcahuasi, 11°46′S, 76°35′W, 3680 m, 21 mayo 2000, *H. Beltran 3474* (holotype, USM; isotypes, F, HAO, HUT, MO, NY, S, TEX, US). Figure 1.

Haec species *S. calcencis* Cabrera & Zardini etiam *S. mollendoensis* Cabrera primo viso similis, sed a hoc lamina foliari basi exauriculata marginibus integra, ab illo capitulis majoribus pedicellis longioribus insidentibus, ab ambobus foliis decurrentibus distinguitur.

Shrubs to 0.6 m high; stems much branched, sparsely tomentose and winged from the decurrent leaf bases, the wings 2–3 mm wide. Leaves alternate, simple, sessile, lamina membranaceous, lanceolate to oblanceolate, 6–9 × 0.5–1 cm, apex acuminate, basally decurrent to 1–1.5 cm; adaxially dark green and arachnoid tomentose, abaxially pale green and densely tomentose, pinnately veined, margins denticulate. Capitulescence lax, with 1 or 2 branches terminating in capitula from the uppermost nodes; peduncles 5–15 cm long, finely striate, arachnoid tomentose, with bracteoles ca. 7 per peduncle, lanceolate, 15–35 × 0.5–1.5 mm, apex long attenuate distally. Capitula radiate; calycular bracts ca. 9, linear, 9–11 × 0.5–0.8 mm, apex attenuate; involucre campanulate to hemispherical, 9–10 × 10–13 mm diam.; phyllaries 12 to 14, uniseriate, subequal, chartaceous, lanceolate, 10–12 × 1–3 mm, free, dorsally arachnoid tomentose, inside glabrous, apex acute, briefly short-pubescent, margins scarious; ray florets 9 to 12, pistillate, well exserted from the involucre; corolla yellow, the tube linear, 5–6 mm long, glabrous, the limb oblong, 15–20 × 2–3 mm, flat, glabrous, 4- or 5-nerved, apex bi- or tridenticulate; disk florets 55 to 70, bisexual, corolla yellow, tubular, 12–14 mm long overall, tube 5–6 mm long, the limb 3–4 mm long, narrowly campanulate, apically 5-dentate, teeth triangular, 1–1.2 × 0.4 mm, apex acute and slightly thickened; anthers ca. 4 mm long, base obtuse, with apical appendage 0.4–0.5 mm long; style branches recurved, 2.5 mm long, with papillate stigmatic lines marginally on inner surfaces, apex truncate with a small crown of penicillate trichomes. Achene (immature) cylindrical, 3–4 × 0.7–0.9 mm, densely sericeo-papillose; pappus biseriate, persistent, white, 6–7 mm long with bristles equivalent in length, strigillose.

Distribution and ecology. *Senecio albaniae* is known only from the type locality, San Pedro de Casta in the province of Huarochiri, Lima, Peru, on

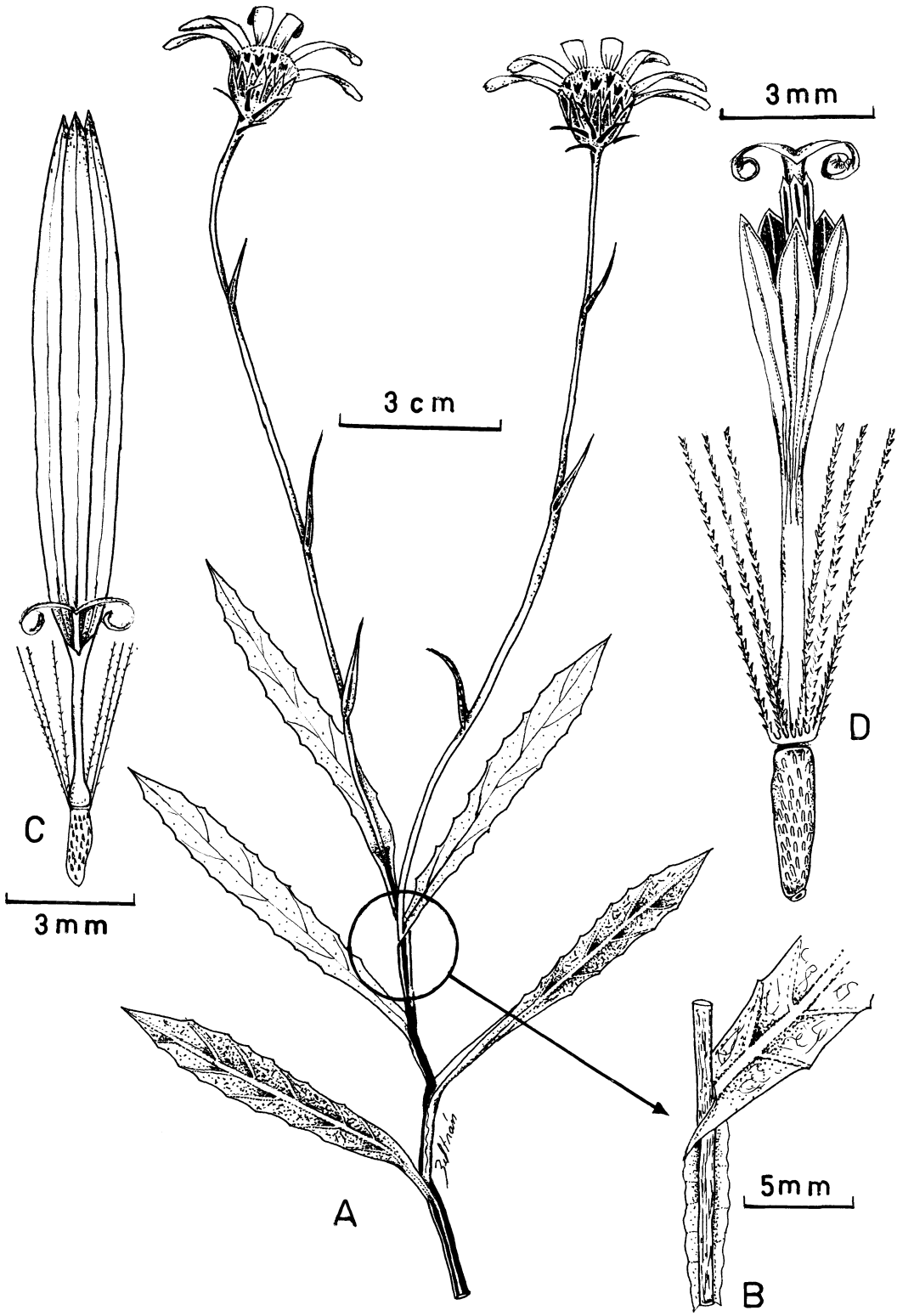

Figure 1. *Senecio albaniae* H. Beltran. —A. Flowering branch. —B. Enlarged leaf with decurrent base. —C. Ray floret. —D. Disc floret. (Drawn from *J. Alban & N. Malca 11339*, USM.)

the western escarpment of the Andean Cordillera and shrubby communities that include *Mutisia acuminata* Ruiz & Pavón, *Ophryosporus peruvianus* (Gmelin) King & Robinson, *Senecio cerratei* Cuatrecasas, *Senecio richii* A. Gray, *Senecio subcandidus* A. Gray (all Asteraceae), and *Opuntia subulata* (Muehlenpfordt) Engelmann (Cactaceae).

Etymology. This new species is named for its first collector, Joaquina Alban, a Peruvian ethnobotanist at the Universidad de San Marcos.

Discussion. This is the only known South American species of *Senecio* with winged stems. This character, however, is also known from the Peruvian *Caxamarca sanchezii* M. O. Dillon & Sagastegui in a newly described monotypic genus in the Senecioneae (Dillon & Sagastegui, 1999).

Since there is no modern account of the entire genus, relationships among species of *Senecio* remain speculative; therefore, I am not able to fit the new species within any of the infrageneric categories established by Cabrera (1985) and Jeffrey (1992) for Andean taxa of *Senecio*. However, it could be placed tentatively into the series *Otopteri* (Cabrera, 1985) through the link with *Senecio bangii* Rusby, a superficially similar Bolivian plant. Curiously and according to my observations, *S. bangii* Rusby is an anomalous member of the series.

Clearly, *S. albaniae* would appear closest to a Peruvian natural complex made up of *S. icaensis* H. Beltran & Galan de Mera, *S. abadianus* DC., *S. arnaldii* Cabrera, *S. okopanus* Cabrera, *S. lomincola* Cabrera, *S. yauyensis* Cabrera, *S. subcandidus* A. Gray, *S. tovarii* Cabrera, *S. truxillensis* Cabrera, *S. calcensis* Cabrera & Zardini, and *S. mollendoensis* Cabrera. Probably, *S. bangii* Rusby could find a better position within this latter complex.

In Peru, *Senecio albaniae* superficially resembles *S. calcensis* Cabrera & Zardini (1975), a species with shorter peduncles and smaller capitula, and *S. mollendoensis* Cabrera (1962), a species with upper leaves with dilated and auriculate bases and coarsely dentate margins.

Paratype. PERU. **Lima:** Huarochiri, San Pedro de Casta, Path Chaniulpo-Quinual 11°45.734′S, 76°35.581′W, 3200–3500 m, 21 May 1999, *J. Alban & N. Malca 11339* (F, MO, USM, NY).

KEY TO *SENECIO ALBANIAE* AND RELATED PERUVIAN SPECIES

1a. Leaves decurrent on stems . . . . . *S. albaniae*
1b. Leaves not decurrent on stems.
  2a. Basal leaves sessile, auriculate, the margins coarsely dentate . . . . . *S. mollendoensis*
  2b. Basal leaves with short petioles, not auriculate, the margins finely dentate . . *S. calcensis*

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