

# A new species of *Gynoxys* (Asteraceae: Senecioneae) from Peru

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## Abstract

*Gynoxys tabaconasensis* H. BELTRÁN & S. BALDEÓN (Asteraceae: Senecioneae), a new species from Peru with fulvous indument and large leaves is described, illustrated and compared to morphologically similar species.

## Resumen

*Gynoxys tabaconasensis* H. BELTRÁN & S. BALDEÓN (Asteraceae: Senecioneae), una especie nueva del Perú con indumento pardo amarillento y hojas grandes es descrita, ilustrada y comparada con otras especies morfológicamente similares.

## Introduction

*Gynoxys* CASS. is a Neotropical genus of approximately 60 species (BREMER 1994) or perhaps as many as 120 species (NORDENSTAM 2007), with limits still unclear. Thus species were segregated to *Paracalia* (CUATREC.) CUATREC. (CORREA 2003) and *Nordenstamia* LUNDIN (LUNDIN 2006, NORDENSTAM 2006). Most *Gynoxys* species are Andean. HERRERA (1980) provides a general account of the genus in Peru, with a key and descriptions. Later new species were recorded by SAGÁSTEGUI & DILLON 1985, SAGÁSTEGUI & TELLEZ 1987, DILLON & SAGÁSTEGUI 1988, FUNK & ROBINSON 1989, ROBINSON & CUATRECASES 1992. DILLON & HENSOLD (1993) recognized 51 species of *Gynoxys* in Peru and 45 of these considered as endemic to Peru were evaluated and categorized according to the IUCN criteria (BELTRÁN et al. 2006).

Here, based on recently collected material in Northern Peru we recognize a new species.

***Gynoxys tabaconasensis* H. BELTRÁN & S. BALDEÓN, sp. nov. (Fig.1).**

**Type:** PERU, Departament Cajamarca. Province San Ignacio. District Tabaconas. Lagunas Arrebiatadas, Santuario Nacional Tabaconas-Namballe. Bosque de Ladera, pendiente de 70°, dominado por *Weinmannia* y *Clusia*, 3150–3180 m, 9 April 2003, SEVERO BALDEÓN & LUIS ADRIANZEN 5160 (Holotype: USM; Isotypes: MO, S).

Arbor 5 m alta, indumento pilis fulvis usque ad 1.3 cm longis obsita. Folia membranacea ad basim valde cordata. Capitulum phyllariis glabris. *Gynoxiae tomentosissimae* similis, quae tamen pilis minoribus et densioribus, capitulis phyllariis dense pubescentibus.

Tree 5 m tall, cylindric branches densely pubescent, hairs pale yellowish nearly 1.3 cm long on young shoots. Leaves simple, opposite, petioles 2–4 cm long, pubescent, slightly flattened, slightly amplexicaul at the base; lamina membranaceous, bicolorous, broadly elliptic to subcordate, 13–23 cm long, 7–16 cm wide, base cordate to auriculate, apex acute, margins entire to slightly denticulate with teeth spaced, 1–1.5 mm long, green, puberulent adaxially, hairs copious, yellowish fulvous, conspicuous on primary and secondary veins, abaxially with pubescence slightly more developed and densely covering the veins; venation pinnate, with 15–16 pairs of secondary veins some bifurcating towards the margin. Capitula terminal, broadly corymbose with branches densely corymbose up to 19 cm long; peduncles 6–8 mm long, bracteolate, bracts triangular 10 mm long, attenuate at the apex, pubescence similar to the abaxial indument of leaves. Capitula radiate, 10–11 mm long, 3–4 mm wide; involucre cylindric, calyculate bracts small, narrowly triangular, 2 mm long, 0.5 mm wide, pilose at the apex; phyllaries 5, glabrous, subequal, membranaceous, external linear-lanceolate, 7 mm long, 1.5 mm wide, internal oblong, 7 mm long, 2.1 mm wide, margins scariose. Ray florets 2; corolla yellow, glabrous, tube 5–6 mm long, limb 5 mm long, 2.1 mm long at its broadest width, 5-nerved, apex 3-dentate; achenes oblong, 2 mm long, glabrous, pappus bristles scabrid, yellowish, biseriate, 5 mm long. Disc florets 3 or 4, yellow, glabrous, ca. 11 mm long, tube 3–3.5 mm long, limb campanulate, ca. 5.5 mm long, 0.8 mm wide, markedly 5-lobed for half its length, lobes linear-lanceolate, ca. 4 mm long, revolute, acute at apex; anthers 3.1 mm long, theca 2 mm long, 0.1 mm wide, sagittate at base, 0.1 mm long, connective appendix 0.3 mm long, anther collar 0.8 mm long, cylindric; stylar branches linear, dorsally papillose, with triangular apices ending in a cluster of papillae, longer at the centre. Achenes (immature) oblong, 2 mm long, glabrous. Pappus bristles biseriate, scabrid, yellowish, 5 mm long.

### **Taxonomic discussion**

*Gynoxys tabaconasensis* is characterized by its indument of fulvous hairs, more than 1 cm long, large membranaceous leaves with cordate base, and glabrous phyllaries; a combination of characters not found in any known Peruvian *Gynoxys* (HERRERA 1980, DILLON & SAGÁSTEGUI 1988). At first hand, this taxon could be confused with *G. tomentosissima* CUATREC. from northern Peru, however this species has shorter and more dense hairs, leaves ovate and less than 8 cm long, capitula with more florets, and phyllaries densely tomentose adaxially. The new species also resembles *Paragynoxys meridana* (CUATREC.) CUATREC., mainly by the arborescent habit, by the incision of the corolla limb to half its length, the few florets (5), and the short and briefly sagittate thecae, however the latter can be distinguished by discoid capitula with white florets and by the presence of callosities or warts on the main nerve.

### **Distribution and ecology**

*Gynoxys tabaconasensis* is only known from the reduced populations in the type locality, where it grows in a cloud forest of stunted trees with abundant epiphytes. It flowers in June.

### **Etymology**

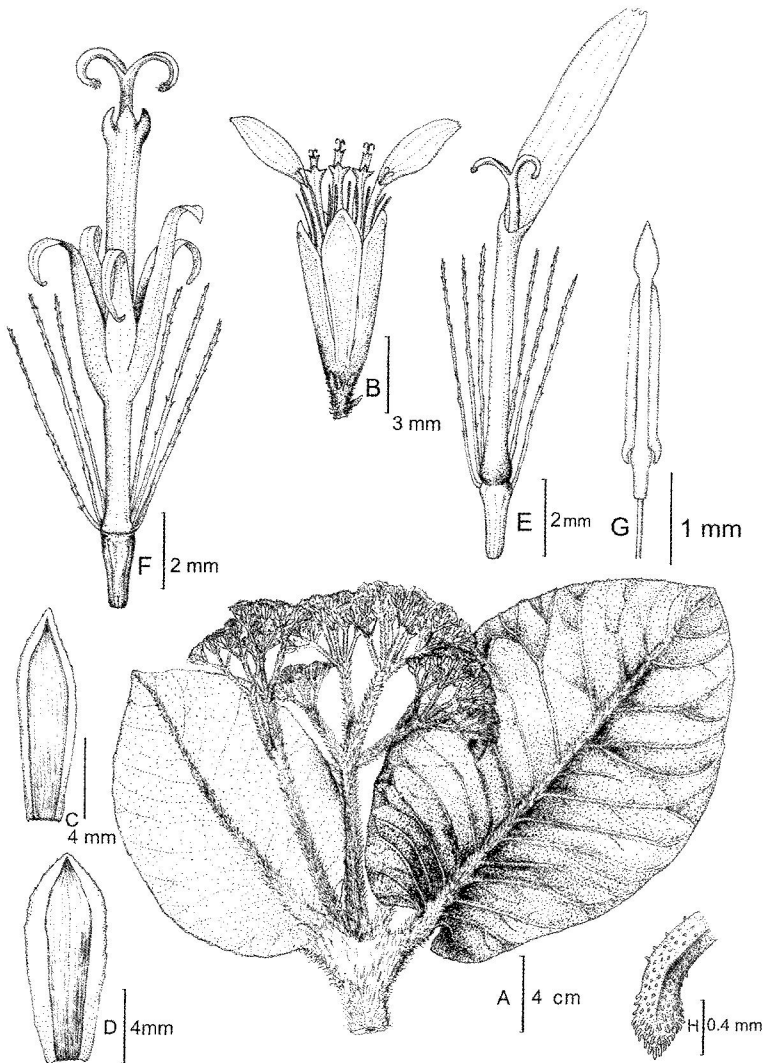
The specific epithet alludes to the name of the sole locality, a site within the Tabaconas-Namballe National Sanctuary in northern Peru.

### **Conservation status**

According to IUCN criteria (2001), this new species should be considered in the category of endangered (EN), since the known populations are found within a protected area. This area is established to conserve endangered species such as *Tremarctos ornatus* “spectacled bear”, *Tapirus pinchaque* “highlands tapir or ante”, in addition to populations of tree species considered at risk such as “romerillos”, viz., *Podocarpus oleifolius* D. DON ex LAMB. and species of *Prumnopitys* and *Retrophyllum*.

### **Acknowledgements**

We wish to thank B. LEON for review and translation to English, A. GRANDA for reviewing the manuscript in an early draft, and G. PINO for the Latin diagnosis.



**Fig 1.**

*Gynoxys tabaconasensis* H. BELTRÁN & S. BALDEÓN.

A Flowering branch. B Capitulum. C Phyllary (ventral view). D Phyllary (dorsal view). E Ray floret. F Disc floret. G Stamen. H Style branch of disc floret. – Drawn from BALDEÓN & ADRIANZÉN 5160 (USM).

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