

***ERIGERON RECONDITUS* (ASTERACEAE),  
A NEW CONZYOID SPECIES FROM SOUTHERN MEXICO**

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**ABSTRACT**

***Erigeron reconditus* Nesom, sp. nov.**, is known by collections from Oaxaca and Guerrero, Mexico. The plants previously have been identified mostly as *Erigeron laevigatus* (= *Conyza apurensis*), which they resemble in their open, paniculate to corymboid inflorescence, but they differ in stem and involucrel vestiture, phyllaries with prominent oil ducts, and flat achenes with thick marginal ribs. The closest relative of the new species is hypothesized to be *Erigeron columnaris* (= *Conyza microcephala*), another endemic of Mexico.

A previously unrecognized, conzyoid species from Mexico is brought to light here and described as *Erigeron reconditus* Nesom. These plants have been identified mostly as *Conyza apurensis* Kunth 1818 (= *Erigeron apurensis* (Kunth) Griseb.; fide Pruski 1998 = *Erigeron laevigatus* Rich. 1792 = *Conyza laevigata* (Rich.) Pruski) but the inflorescence is more open-paniculate (vs. usually distinctly corymboid in *C. apurensis*) and the achene morphology, stem vestiture, and involucrel morphology and vestiture differ from *C. apurensis*. These aspects of the Oaxacan plants are closely similar to those of *Erigeron columnaris* Nesom (= *Conyza microcephala* Hemsley; see Nesom 2018), suggesting that the two are most closely related to each other. *Erigeron columnaris* also is a Mexican endemic but wider ranging than *E. reconditus* (southern Chihuahua and Sinaloa to Durango, Jalisco and Michoacan, and eastward and south to Hidalgo, Oaxaca, and Chiapas). *Conyza apurensis* is distributed widely through Mexico into Central America, South America, the West Indies (Pruski 2018), and in Miami-Dade Co., Florida.

**ERIGERON RECONDITUS** Nesom, sp. nov. **TYPE: MEXICO. Oaxaca.** [Mpio. San Carlos Yautepec]: Cerro de San Felipe, 7500 ft, Nov 1894, *C.L. Smith 307* (holotype: TEX; isotypes: MEXU image, MO).

Similar to *Erigeron laevigatus* (= *Conyza apurensis*) in its open, often corymboid inflorescence but different in stem vestiture, eglandular involucrel vestiture (vs. glandular), phyllaries with prominent oil ducts (vs. without), and especially in its flat, thick-ribbed achenes (vs. achenes without lateral ribs). Similar to *Erigeron columnaris* (= *Conyza microcephala*) in vestiture, phyllary morphology, and ribbed achenes but distinct in oft-branching (above the middle) stems, paniculate to loosely corymboid inflorescence, and short-ligulate ray corollas.

**Plants** annual, taprooted. **Stems** 40–80 cm tall, erect from the base, prominently ridged, eglandular, sparsely hirsute to hirsute-hispid. **Leaves** cauline (basal deciduous by flowering), relatively even-sized or gradually decreasing in sized distally, entire or with 1(–2) pairs of shallow teeth near the apex, narrowly elliptic to oblanceolate-elliptic or lanceolate-elliptic, petiolate or the larger narrowed basally to a petiolar region, 1–4(–5) cm long, 3–8(–10) mm wide, both surfaces eglandular, sparsely strigose-hirsute with arching hairs ca. 0.1–0.2 mm long, margins short-ciliate. **Heads** paniculate or in a loose corymb, on naked or bracteate peduncles 5–25 mm long. **Involucres** 5–7 mm wide (pressed); phyllaries in 2–3 series of equal to subequal length, longest 3–3.5 mm, fused at the base into a receptacle-like disc, sparsely hirsute-hispid, eglandular, with prominent, golden-orange oil ducts, often 3 in parallel. **Ray and disc flowers** numerous, fertile; rays in ca. 3–5 series, ligules 0.5–0.6 mm long,

white to purple-tinged. **Disc corollas** 2.0–2.1 mm long, 5-lobed. **Achenes** oblanceolate-obovate, ca. 0.8 mm long, each margin with a prominently thickened rib, surfaces eglandular, sparsely short-strigose; pappus a single series of 12–14 bristles.

**Additional collections examined. MEXICO. Oaxaca.** 36 km N of Putla on road to Tlaxiaco, pine-oak zone, open, sandy roadcut in forest, 2420 m, 27 Nov 1983, *Barrie 761* (TEX); Dist. Etlá, Mpio. San Felipe Tejalapa, El Trapachito, bosque pino-encino, 1781 m, 20 Oct 2011, *Cruz C. 545* (TEX); Dist. Huajuapán de León, 4 km adelante del entronque rumbo a Guadalupe-Cuautepec, por la carretera Huajuapán de León - Tehuacán (entre Miltepec y Huajuapán), bosque de *Juniperus*, 1900 m, 29 Sep 1985, *Dorado R. & Salinas T. F-2919* (TEX); Distr. Sola de Vega, Mpio. Santiago Textitlán, rumbo a Río Humo, bosque de pino, 2592 m, 8 Feb 2007, *Jacob S. 1564* (TEX); Distr. Sola de Vega, Mpio. Santiago Textitlán, pueblo viejo, bosque de pino-encino, terreno de cultivo, orilla de río, 2148 m, 5 Sep 2006, *Trujillo O. 417* (TEX); Distr. Sola de Vega, Mpio. Santiago Textitlán, Paraje El Cajón, bosque de pino-encino, 1921 m, 13 Nov 2006, *Trujillo O. 992* (TEX); Distr. Sola de Vega, Mpio. Santiago Textitlán, Paraje Arroyo de la Sienia, bosque de pino-encino, 2395 m, 22 Nov 2006, *Trujillo O. 1016* (TEX); Distr. Sola de Vega, Mpio. Santiago Textitlán, Paraje Río Aguacate, bosque de pino-encino secundario guamil, orilla de arroyo río, 1875 m, 14 Dec 2006, *Trujillo O. 1158* (TEX); Distr. Sola de Vega, Mpio. Santiago Textitlán, Paraje desviación de Río Humo agricultura de temporal, 2287 m, 28 Oct 2006, *Trujillo V. 806* (TEX); Distr. Sola de Vega, Mpio. Santiago Textitlán, camino rumbo a Nuevo León, bosque de pino-encino, guamil en cañada, 1842 m, 29 Dec 2006, *Trujillo V. 1049* (TEX); El Cereza, ca. 3 km N of San Agustín Yatareni, 28 Aug 1993, *Weiss 451* (TEX).

**Additional collections, from MEXU images** (via UNAM Portal). **MEXICO. Guerrero.** Mpio. Copalillo, Crucero Xixitla-Papalutla-Olinalá, 3 Nov 2007, *Hinojosa E. 295* (MEXU); Mpio. Chilpancingo, falda este de cerro Alquitrán, 2 Nov 1968, *Kruse 2204* (MEXU) and 7 Nov 1968, *Kruse 2249* (MEXU); [Mpio. Chilpancingo], Mazatlán, 9 Jan 1977, *Schwabe s.n.* (MEXU). **Oaxaca.** 22 mi SW of Tlaxiaco, 26 Oct 1965, *Cronquist & Sousa 10419* (MEXU); Distr. Miahuatlán, San Juan Mixtepec, 10 Oct 1932, *Hunn OAX-310* (MEXU); Distr. Juxtlahuaca, San Juan Mixtepec, Cañada de Tziqui Ntuchi, 10 Nov 1988, *Reyes 1187a* (MEXU); Distr. Centro, San Andrés Huayápam, Cerro Donaji, 11 Oct 1985, *Saynes V. 1070* (MEXU); Distr. Etlá, Las Sedas a Telixtlahuacán, 7 Dec 1932, *Silvio y Conzatti 4880* (MEXU); Distr. Nochixtlán, Santiago Apoala, 12 km al NE de San Miguel Chicahua camino a Cuicatlán, 7 Jul 2004, *Téllez et al. 17181* (MEXU); Huautla de Jiménez, 21.5 km al NE de San Miguel Chicahua camino a Cuicatlán, 7 Sep 2004, *Téllez et al. 17276* (MEXU); San Juan Bautista Atlatlahuca - 8.8 km al NE de S.J.B. Atlatlahuca hacia la Sierra Monteflor, 29 Nov 2009, *Téllez et al. 18192* (MEXU); Distr. Yautepec, Santa María Ecatepec, Río Ocate, al S de Santa Marpía Ecatepec, 9 May 1993, *Tenorio L. 18827* (MEXU).

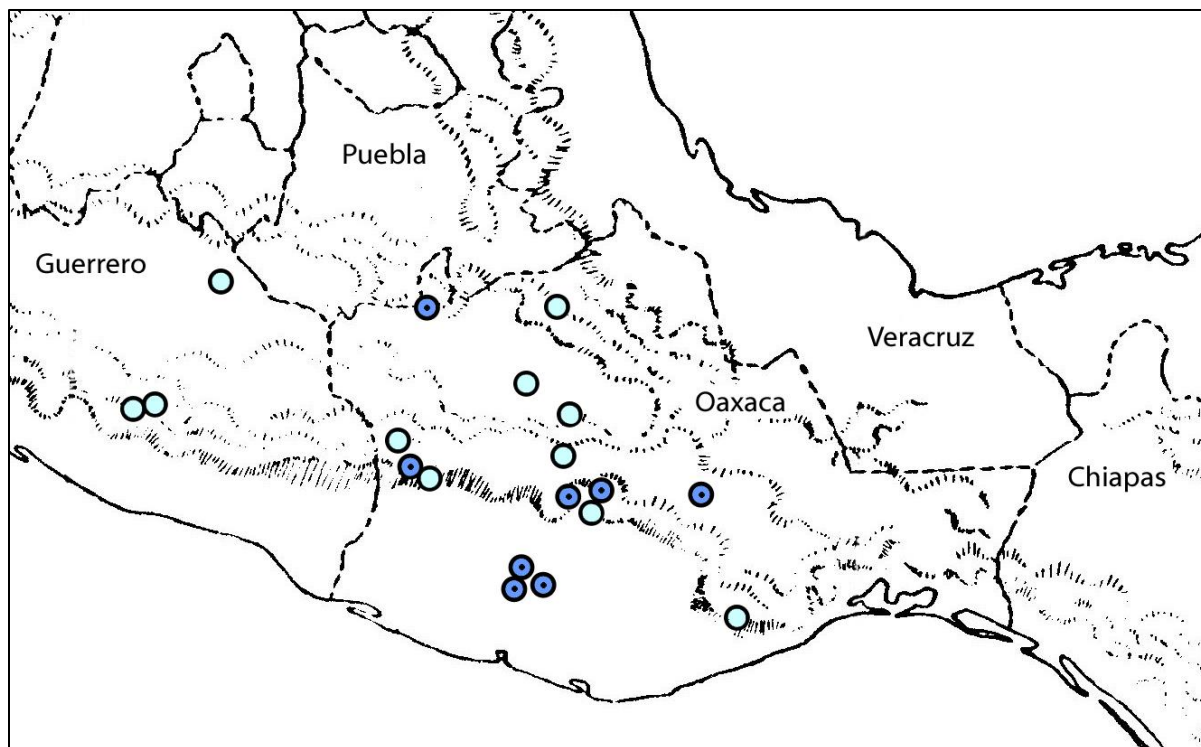


Figure 1. Distribution of *Erigeron reconditus*. Lighter colored symbols are from imaged collections at herbarium MEXU, as cited separately above; confidence in their identification is good but not as high as with those collections seen first-hand at TEX. No collections have been seen from Puebla, Veracruz, or Chiapas.

#### ACKNOWLEDGEMENTS

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Figure 2. *Erigeron reconditus*. Holotype, C.L. Smith 307 (TEX).



Figure 3. *Erigeron reconditus*. Oaxaca, Weiss 451 (TEX)

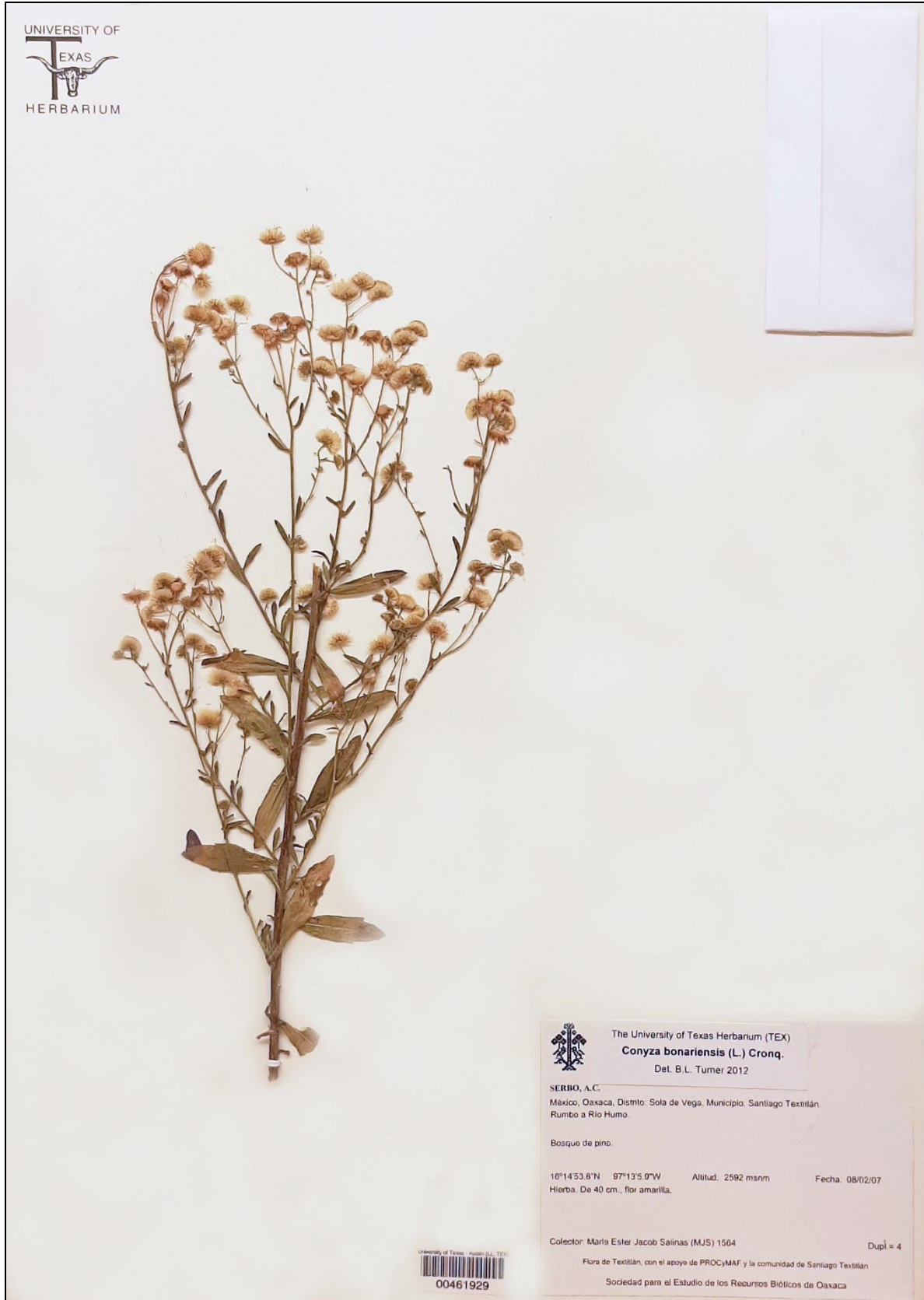


Figure 4. *Erigeron reconditus*. Oaxaca, Jacob S. 1564 (TEX).

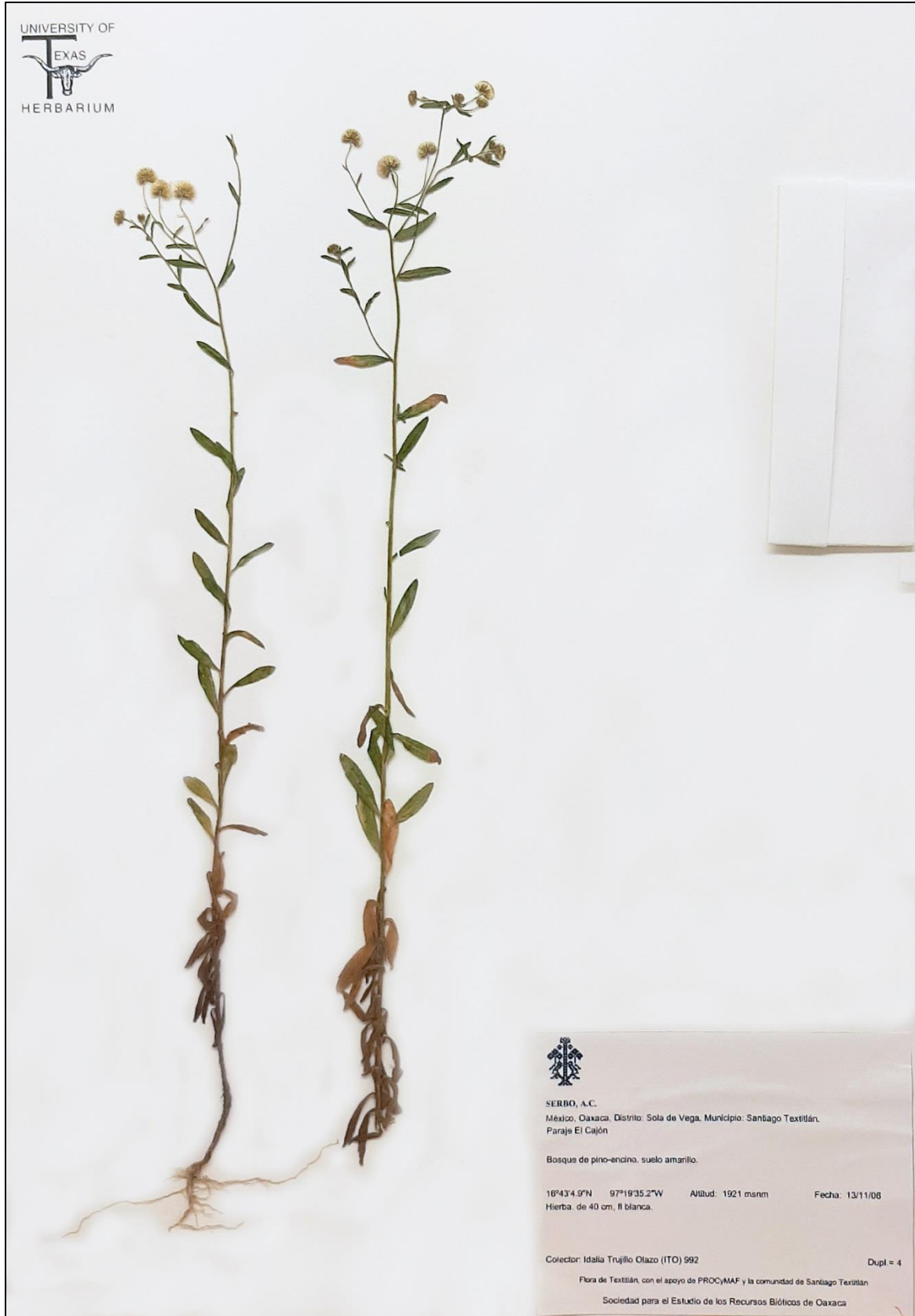


Figure 5. *Erigeron reconditus*. Oaxaca, Trujillo O. 992 (TEX).

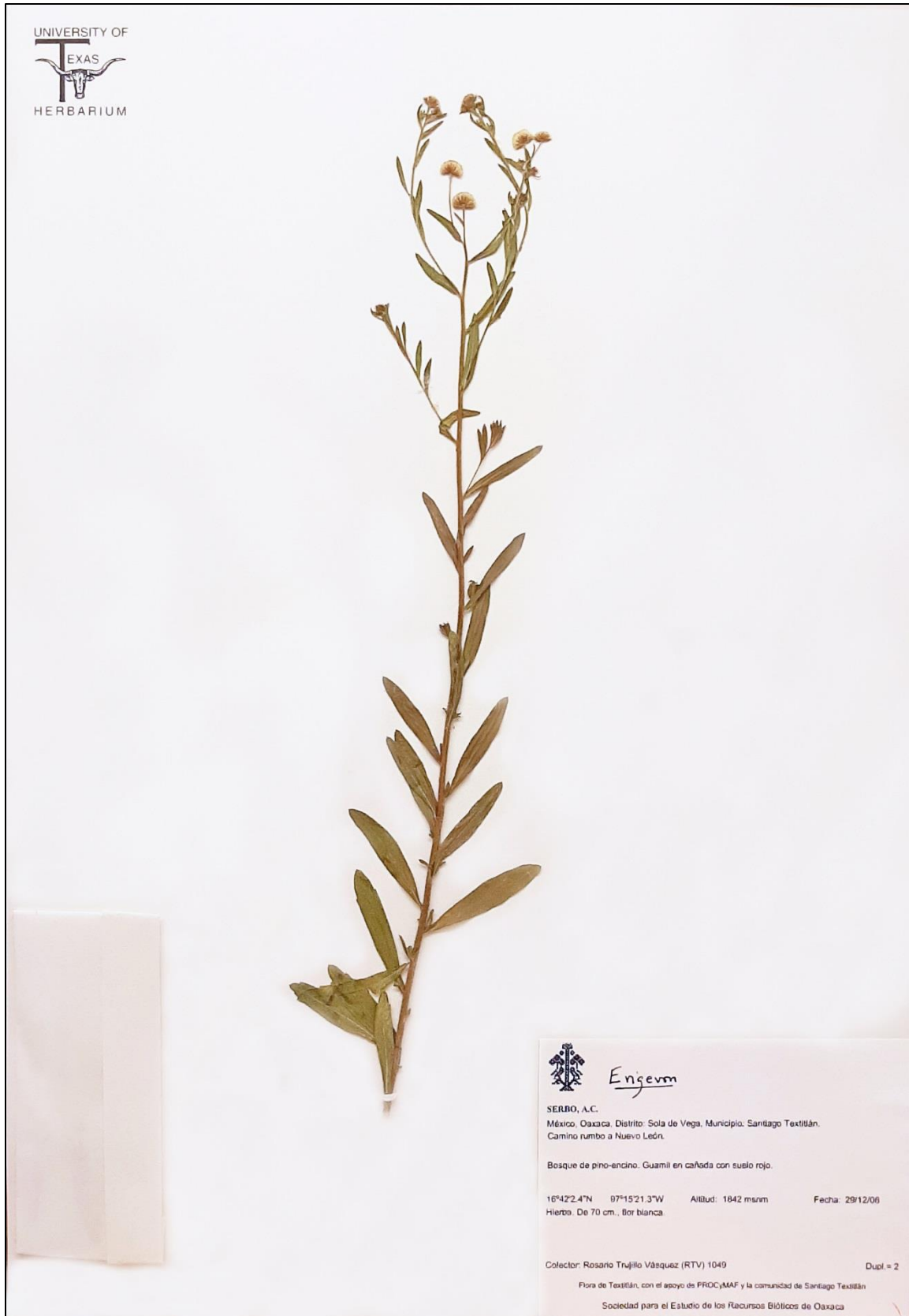


Figure 6. *Erigeron reconditus*. Oaxaca, Trujillo V. 1049 (TEX).





Figure 7. *Erigeron reconditus*. Oaxaca, Trujillo O. 1016 (TEX).



Figure 8. *Erigeron reconditus*. Characteristic vestiture of stems and leaves. Leaf surfaces are evenly strigose-hirsute with tiny hairs.

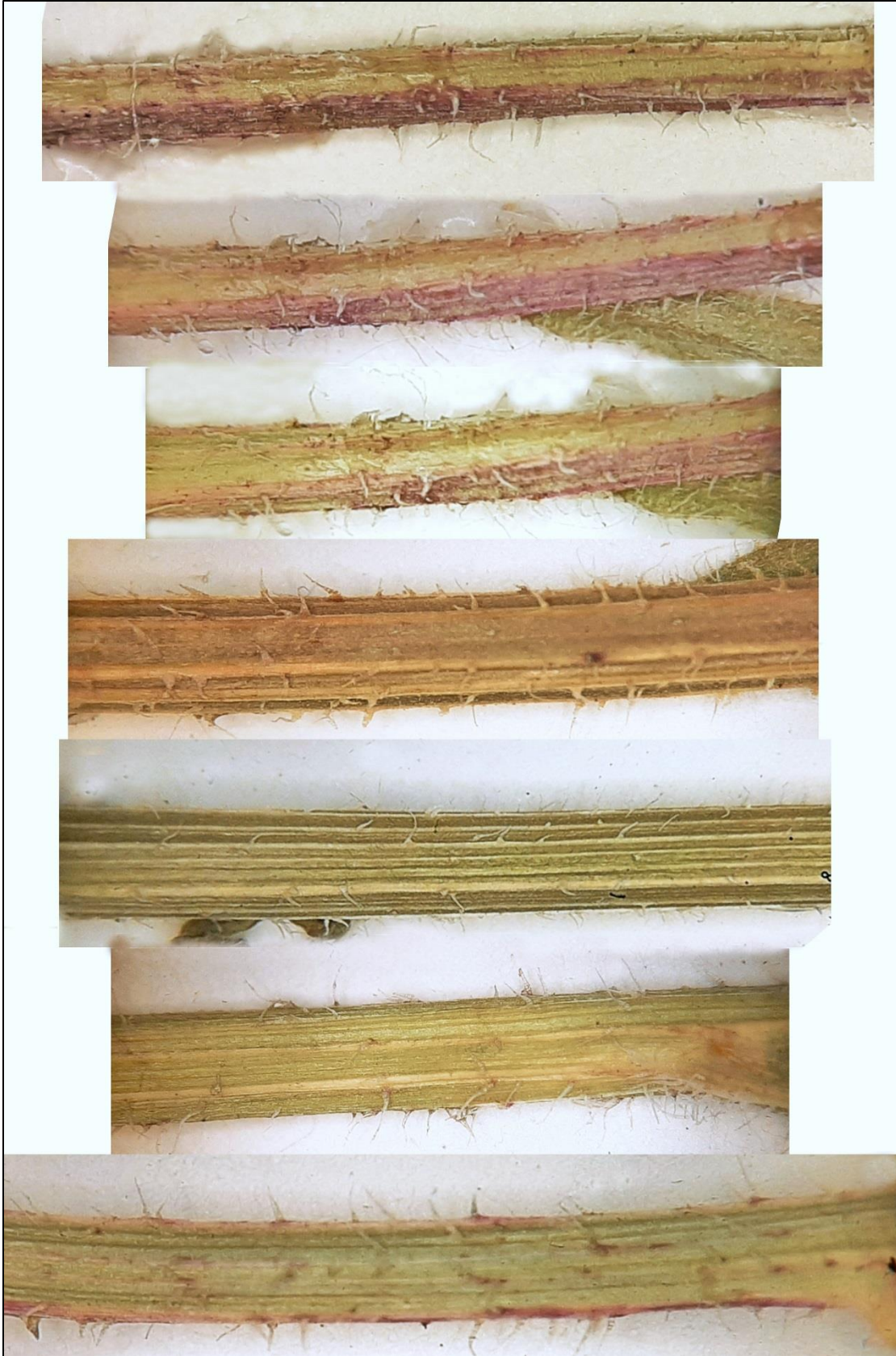


Figure 9. *Erigeron reconditus*. Variation in stem vestiture, from different collections.



Figure 10. *Erigeron reconditus*. Cluster of heads, showing relative number of ray and disc flowers.



Figure 11. *Erigeron reconditus*. Receptacle-like base (fused phyllaries) of involucre, characteristic of this species and other conyzas.



Figure 12. *Erigeron reconditus*. Phyllary morphology, showing prominent golden-orange oil ducts.



Figure 13. *Erigeron reconditus*. Phyllary morphology, details of vestiture and oil ducts.



Figure 14. *Erigeron reconditus*. Achene morphology — strongly flattened and with a thickened rib at each margin.