

## A NEW SPECIES OF *DALEA* (FABACEAE) FROM SOUTHERNMOST TEXAS

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### ABSTRACT

A new taxon, *Dalea ceciliana* B.L. Turner, sp. nov., is described from southern Texas, where it is confined to deep sandy soils. It is closely related to the calciphile *D. aurea*, but the two taxa do not co-occur nor do the two populational systems intergrade near regions of contact. A photograph of the holotype is presented, along with a map showing the distributions of the taxa concerned.

**KEY WORDS:** *Dalea*, *D. aurea*, *D. ceciliana*, Texas, Mexico

The present novelty is similar to and clearly closely related to the widespread *Dalea aurea* Nutt. ex Pursh, and it is likely that specimens of the new species were included in the latter by Barneby (1977) in his treatment of the complex, to judge from his statement that “The climatic tolerance of *D. aurea* is exceptional, for it extends in Texas southward out onto the sands of the Gulf Coast Prairie and in Colorado and New Mexico up to the Rocky Mountain piedmont.”

The new species described here differs from *Dalea aurea* in its relatively shorter leaflets (1–2 times longer than wide vs. 2–4 times), vestiture of longer hairs, floral bracts lanceolate (vs. ovate) and longer (6–8 mm vs. 3–6 mm) (Fig. 1), and its habitats in the deep sands of southern Texas. The two taxa do not co-occur nor do the two populational systems intergrade near regions of contact (Fig. 2).

### **DALEA CECILIANA** B.L. Turner, sp. nov.

*Daleae aureae* Nutt. similis sed differt foliis plerumque 1–2-plo longioribus quam latioribus (vs 2–4-plo) trichomatibus fulvis vel brunneis longioribus (1–2 mm vs. minus quam 1 mm), bracteis floralibus lanceolatis 6–8 mm longis (vs. late ovatis 3–6 mm longis), et habitatione solorum arenaceorum profundorum Texas australis (vs. locorum calcareorum plus borealium).

**TYPE:** TEXAS. Kenedy Co.: ca. 2 mi N of Norias, sandy grassy soil, flowers yellow, 10 Jun 1963, *D.S. Correll & D.C. Wasshausen* 27632 (holotype: TEX, Fig. 1).

**Perennial, multi-stemmed herbs, 30–50 cm high. Stems** pubescent with upswept tawny hairs 0.8–1.0 mm long. **Leaves** (at mid-stem) 5-foliate, the rachis ca 2 cm long, narrowly winged throughout, the latter glandular-punctate beneath; leaflets ovate to obovate, 1.0–1.5 times as long as wide, pubescent on both surfaces with tawny hairs 1–2 mm long; petioles mostly 5–10 mm long; stipules narrowly lanceolate, ca 2 mm long. **Peduncles** 1–3 cm long, the heads at maturity ca 2 cm wide, 2–7 cm long; bracts lanceolate, 6–8 mm long, 2–3 mm wide, pubescent above, glabrous beneath. **Calyces** 8–9 mm long, the lobes 4–5 mm long, pubescent with tan or tawny (rarely white) hairs 1–2 mm long, the sinuses with 2–4 prominent glands. **Flowers** yellow or rarely “pale pink (*Runyon* 2679, TEX),” the banner 5–6 mm long, flabellate apically, the stipe ca 4 mm long. **Staminal tube** ca 6 mm long, the filaments ca 2 mm long. **Pods** ovate-conical, ca 4 mm high, 2 mm wide.

**Representative specimens.** TEXAS. Brooks Co.: 10 mi N of Encino, 16 Apr 1954, *Johnston* 54490 (TEX). Hidalgo Co.: 8 mi N of San Miguel, 9 Apr 1944, *Lundell & Lundell* 12785 (TEX). Jim Hogg Co.: Agua Nueva, Farm Road 1017, 21 Apr 1962, *Johnston* 54132 (TEX). Kenedy Co.:

15 mi S of Sarita, 12 Jul 1957, *Correll & Johnston 17864* (TEX). **Maverick Co. (?)**: (w/o locality), 1 Jul 1931, *Tharp s.n.* (TEX). **Medina Co.**: Deep sandy soil, Carrizo outcrop, 2 mi SW of Devine, 1 May 1954, *Tharp & Turner 3420* (TEX). **Starr Co.**: ca 8.2 road miles NW of jet FM 755 at La Gloria, 4 Apr 2002, *Carr 20589* (TEX). **Willacy Co.**: Yturria Station, 20 Apr 1933, *Runyon 3026* (TEX). **Zapata Co.**: ca 5 mi NE of San Ignacio along county road to Aguilares, 19 May 1980, *Turner 80-70M* (TEX).

In the above citations, the collection from Maverick Co. is queried since Tharp, on the date concerned, also collected in Medina Co. from the sandy Carrizo formation, where *Dalea ceciliana* is known to occur. The taxon has not been collected in Maverick Co. to date, although the Carrizo sands occur in the easternmost portion of that county. Since the plant concerned lacked a specific collection site, I infer that the collector misnumbered the specimen, such errors a well-known habit of the man (pers. observ.).

*Dalea ceciliana* is named for my long-time friend, Cecilia nee Dean (Fig. 3). She served as Secretary of the Botany Department at the University of Texas, Austin, when it was in its “prime” (and when it existed). She married my friend and colleague, Professor Theodore Delevoryas, exceptional paleobotanist and ex Chairman of that Department. Cecilia subsequently divorced the fellow and remarried her second husband Joe Aldez, with whom she currently resides in Austin, Texas.

Cecilia is one of the most altruistic females of my acquaintance and fully deserving of the eponym. Indeed, I have always referred to her as “Saint Cecilia,” so much I’ve admired her intrinsic goodness.

#### ACKNOWLEDGEMENTS

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#### LITERATURE CITED

- Barneby, R.C. 1977. *Dalea*, in *Daleae imagines*. Mem. New York Bot. Gard. 27: 135–587.  
 USDA, NRCS. 2010. The PLANTS Database. United States Department of Agriculture, Natural Resources Conservation Service, National Plant Data Center, Baton Rouge, Louisiana.  
 <<http://plants.usda.gov>> Accessed October 2010.



Figure 1. Holotype of *Dalea cecilians*.

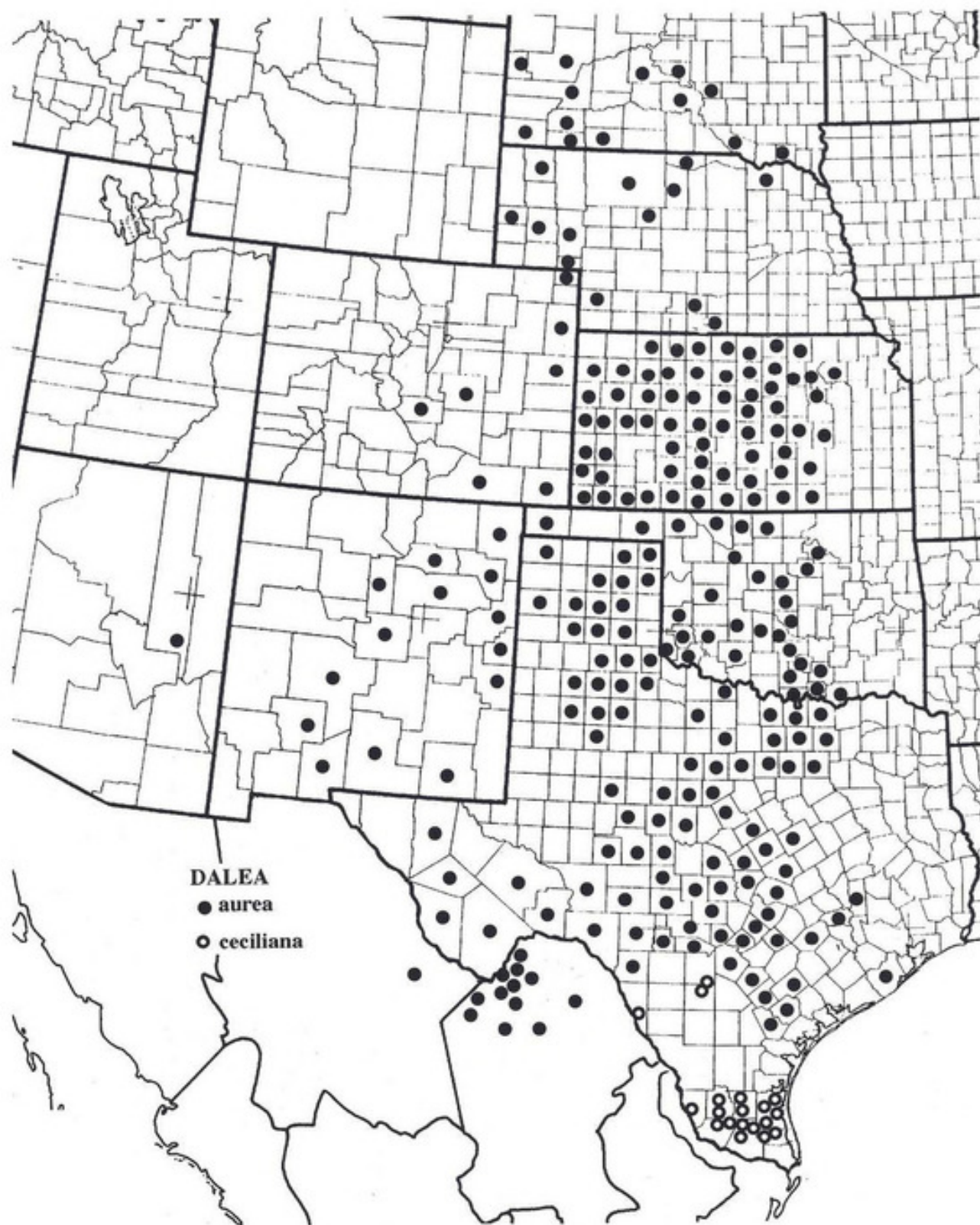


Figure 2. Distribution of *Dalea aurea* and *Dalea ceciliana*.



Figure 3. The eponymee, in Monterrey Mexico, 1983. Photo by Ted Delevoryas.



Turner, B. L. 2010. "A new species of Dalea (Fabaceae) from southernmost Texas." *Phytoneuron* 2010-50, 1-5.

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