

**TAXONOMY OF *EUCNIDE BARTONIOIDES* (LOASACEAE)  
COMPLEX IN TEXAS**

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**ABSTRACT**

The taxonomic status of *Eucnide bartonioides* in Texas is evaluated. It is concluded that two populational systems occur in the state, a small flowered complex largely confined to the Edwards Plateau, and a large flowered complex occurring to the west of the former. A formal name, ***E. b.* var. *edwardsiana*** B.L. Turner, is provided for the small flowered populations. A photograph of the holotype is provided, along with maps showing distribution of the complex. *Phytologia* 94(3): 305-309 (December 1, 2012).

**KEY WORDS:** Loasaceae, *Eucnide*, *E. bartonioides*, Edwards Plateau, Texas

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*Eucnide bartonioides* Zucc. is a widespread, variable species occurring from south-central Texas to San Luis Potosi in northeastern Mexico (Thompson and Ernst 1967, Fig. 2, 3). Most specimens possess relatively large yellow flowers (petals 2.5-4.0 cm long), but as Thompson and Ernst note, "The size of the corolla (and the leaves) is quite variable. The small flowered forms can be confusingly similar to depauperate plants of *Eucnide lobata* even though these two species normally are quite distinct."

The present paper has to do with the biological status of small flowered plants from the Edwards Plateau of central Texas, which were called to the fore by Turner et al. (2003), but are treated herein as a distinct entity, as follows:

**EUCNIDE BARTONIOIDES VAR. EDWARDSIANA** B.L. Turner,  
**var. nov.** Fig. 1

**Cliff-dwelling perennial herbs** to 30 cm high and as wide. **Leaves** mostly 8-16 cm long; petioles 4-8 cm long, pubescent with acerose trichomes ca 1 mm long; blades asymmetrically cordate at base, 5-6 cm long, 4-8 cm wide, having 5-9 crenulate lobes 0.5- 2.0 cm long, sparingly pubescent above and below. **Flowers** axillary; peduncles mostly 2-5 cm long, rarely extending to 12 cm long with age, pubescent like the stems. **Sepals** 5, lanceolate, ca 8 mm long. **Petals** yellow, lanceolate, 10-20 mm long, 5-8 mm wide. **Stamens** 20-40, 19-20 mm long; anthers ca 1 mm long. **Capsule** 5-6 mm long, 5-6 mm wide, densely pubescent with acicular hairs ca. 1 mm long. **Seeds** numerous, ca 0.75 mm long, having 4-5 parallel ridges. **Chromosome number**, undetermined.

TYPE: **U.S.A. TEXAS: COMAL CO.**, "Ca 5 airline mi N of New Braunfels; off River Rd., 3.3 mi N of jct Loop 337; at 1st crossing of Guadalupe River, then (on E side of R) 0.2 mi S along campground rd." On west-facing, limestone bluffs (ca 50 ft high) in a band comprising the middle 1/3rd of bluff in friable limestone. 9 May 1999, *Matt W. Turner 93* (Holotype: TEX; isotypes [7] to be distributed).

REPRESENTATIVE SPECIMENS: **U.S.A. TEXAS: COMAL CO.**, Comanche Springs, New Braunfels, Jun 1850, *Lindheimer 814* (TEX). **EDWARDS CO.**, 12 mi NW of Barksdale, "Blue Hole" on Cedar Creek, 25 Jul 1946, *Correll 13450A* (LL). **HAYS CO.**: ca 3.8 mi SE of Jct Rte 150 and F.M.3237 at Hays City, 700-750 ft, 2 Apr 2008, *Carr 26642* (TEX). **LLANO CO.**: "ca 2 mi N of Tow on sheer schistose bluff along Colorado River." 30 Jul 1970, *Crutchfield 3639* (TEX). **TRAVIS CO.**: "limestone cliffs above Cow Creek on Lake Travis," 22 May 1956, *Tharp s.n.* (TEX).

In the Edwards Plateau region of Texas (Fig. 2), which houses most of the populations of var. *edwardsiana*, the specimens bear uniformly small flowers. In Edwards Co. var. *edwardsiana* appears to intergrade with var. *bartonioides* (Turner 99-351, TEX), such phenomena extending into Val Verde Co. (*Reed 643*, TEX); because of this I have opted to treat the taxa as allopatric varieties.

It should be noted that I sent a collection (*Crutchfield 3639*) of var. *edwardsiana* to Prof. Henry Thompson, guru of the genus at the time of my first interest in the complex, asking his opinion re the small-flowered collections from the Edwards Plateau. He responded (letter attached to the Crutchfield collection at TEX) that he and his co-worker, Wally Ernst were aware of the small-flowered populations of the Austin area, but opted not to name these. He went on to say, however,

With hindsight and the new collection that you have sent I feel that the small flowered plants, at least the ones geographically isolated in the Austin Area (Comal, Travis and now Llano counties) should be recognized taxonomically. At the very least the Austin Area plants are a small flowered, probably highly autogamous race that have become established beyond the limits of large flowered *bartonioides*.

Numerous collections since the above communication have prompted the present contribution.

The novelty is named for the Edwards Plateau, and not for the county (Edwards) in which it appears to grade into var. *bartonioides*.

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### LITERATURE CITED

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Turner, B.L., et al. 2003. *Eucnide*, in Atlas of the Vascular Plants of Texas. Sida, Bot. Misc. 24: 424.

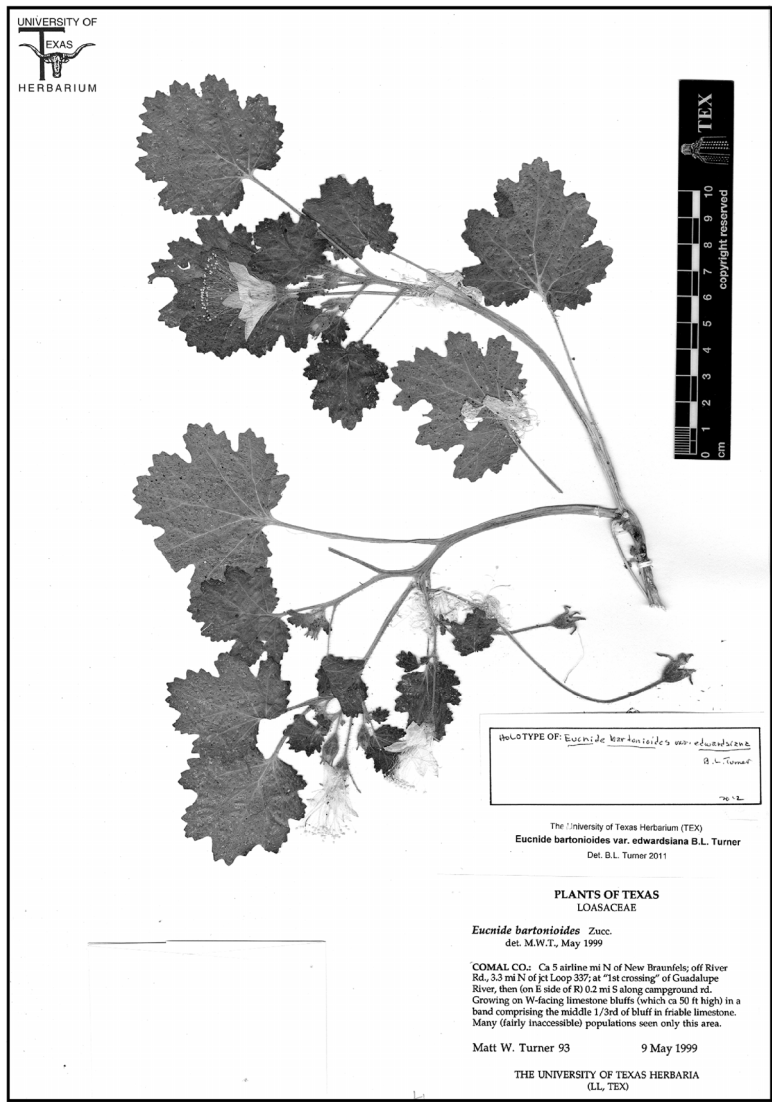


Fig. 1. *Eucnide bartonioides* var. *edwardsiana* (Holotype: TEX).

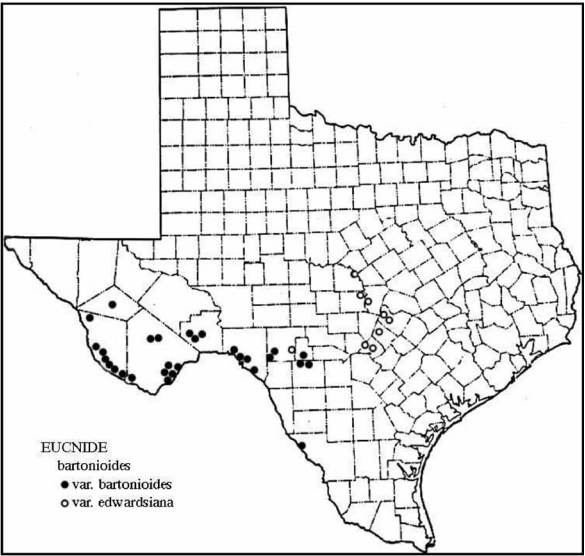


Fig. 2. Distribution of *Eucnide bartonioides* in Texas.

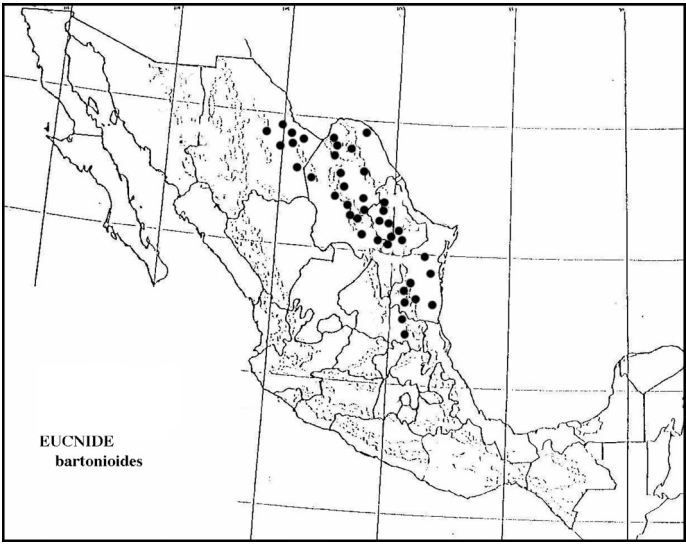


Fig. 3. Distribution of *Eucnide bartonioides* in Mexico.