

## Taxonomy and distribution of *Euphorbia stictospora* (Euphorbiaceae)

Billie L. Turner

Plant Resources Center, The University of Texas, Austin, TX 78712

billie.turner@austin.utexas.edu

### ABSTRACT

The taxonomy of *Euphorbia stictospora* is reviewed. It is treated as a widespread highly variable species occurring from south central Mexico to north central USA. No meaningful infra-specific categories are recognized, although several named varieties have been proposed. It belongs to the sect. *Anisophyllum* of *Euphorbia*, this largely circumscribed by its 3 linear style branches. Published on-line www.phytologia.org *Phytologia* 98(4): 284-287 (Oct 6, 2016). ISSN 030319430.

**KEY WORDS:** Euphorbiaceae, *Chamaesyce*, *Euphorbia*, *E. stictospora*, USA, Mexico

A taxonomic interest in Mexican gypseous Euphorbias has occasioned the present paper, following that of Turner (2016). Acceptance of the genus **Euphorbia** so as to include *Chamaesyce* is based upon the DNA work of Yang et al. (2012).

***Euphorbia stictospora*** Engelm., U.S. Mex. Bound. Surv. Bot. 187. 1858.

*Anisophyllum senile* Klotzsch & Garcke

*Chamaesyce interaxillaris* (Fernald) Millsp.

*Chamaesyce stictospora* (Engelm.) Small

*Chamaesyce stictospora* var. *guadalupensis* Small

*Chamaesyce stictospora* var. *sublaevis* (M.C. Johnst.) Raju & Rao

*Chamaesyce stictospora* var. *texensis* Millsp.

*Euphorbia interaxillaris* Fernald

*Euphorbia stictospora* var. *sublaevis* M.C. Johnst.

*Euphorbia stictospora* var. *texensis* (Millsp.) Fedde

Annual or rarely perennial, prostrate to weakly ascending, herbs; stems nearly glabrous to most often densely pubescent; leaves opposite, glabrous to markedly pubescent; stipules triangular to deltoid; blades variously broadly ovate to rotund, 3-10 mm long, 3-8 mm wide, asymmetric and rounded apically, the margins to some degree serrate; petioles ca 1 mm long; involucre ca 1 mm high; glands 4, ca equal in size, 0.5-1.0 mm wide, usually with short, white to wine-colored, appendages; stamens 3-10; capsules 1.0-1.5 mm long, glabrous to variously pubescent; style branches usually 3, ca 0.3 mm long, these rarely bifid; seeds 3-4 sided, weakly rugose at most, 0.9-1.2 mm long; chromosome number,  $n = 6$  pairs (Powell & Turner (2005).

The species is known to occur in nearly all soil types throughout its distribution, igneous, sandy, limestone or pure gypsum (especially in north central Mexico). The Type is reportedly from southwestern Kansas. It is a widespread, highly variable, species from which several varieties have been segregated, the most recent being that of var. *sublaevis* from north central Mexico, largely recognized by its sparsely pubescent stems and foliage, this proposed by M.C. Johnston (1975), who nonetheless noted that the variety was growing near the typical variety w/o signs of intergradation. Examination of the several sheets cited by Johnston as var. *sublaevis*, including some of my own collections, show sporadic gradation into the typical variety over a large area. Indeed, Small (1913) in his treatment of *Chamaesyce stictospora* notes that it contains "A Texan variety [Type from Cherokee Co., eastern Texas] with less pubescent foliage, broader and more strongly nerved leaf-blades smaller and broader seeds and narrower glandular appendages, is *C. stictospora Guadalupensis* Small [= *E. s.* var. *texensis* Millsp., not *E. texana* Boiss.]"

In short, numerous localized forms from throughout the range of the species might be treated as this or that infra-specific category.

**Euphorbia stictospora** is seemingly close to the recently described **E. rayturneri** (Steinmann & Jercinovic, 2013), so far as known, a novelty restricted to southwestern New Mexico, readily separated from the former by its distinct seeds, uppermost stem pubescence, and yet other characters.

Maps 1 and 2, showing distribution of **E. stictospora** in the USA and Mexico, are based upon specimens in the LL-TEX Herbarium and additional sites provided from the USDA plants database (plants.usda.gov).

#### ACKNOWLEDGEMENTS

My editorial assistant, Jana Kos, provided meaningful input, as did the Curator at LL-TEX, George Yatskievych, for which I am grateful.

#### LITERATURE CITED

- Johnston, M.C. 1975. Studies of the *Euphorbia* species of the Chihuahuan Desert Region and adjacent areas. *Wrightia* 5: 120-143.
- Powell, A.M. and B.L. Turner. 2005. Documented Chromosome Numbers 2005: 1. *Sida* 21: 1663-1664.
- Small, J.K. 1913. *Chamaesyce* in, Fl. S. E. United States: 707-714.
- Steinmann, V. W. and E. Jercinovic, 2013. *Euphorbia rayturneri* (Euphorbiaceae), a new species from southwestern New Mexico, United States. *Novon* 22: 482-485.
- Turner, B.L. 2016. Taxonomy and distribution of *Euphorbia chaetocalyx*, *E. crepidata* and *E. fruticulosa* (Euphorbiaceae). *Phytologia* 98: 137-141.
- Yang, Y. et al. 2012. Molecular phylogenetics and classification of *Euphorbia* Subgenus *Chamaesyce* (Euphorbiaceae). *Taxon* 61: 764-789.



