

**BIOLOGICAL STATUS AND DISTRIBUTION OF  
*THELESPERMA FLAVODISCUM* (ASTERACEAE:  
COREOPSIDEAE)**

**Billie L. Turner**

Plant Resources Center  
The University of Texas  
Austin, Texas 78712  
billie@uts.cc.utexas.edu

**ABSTRACT**

The biological status of *Thelesperma flavodiscum* vis-à-vis *T. filifolium* is discussed, along with the habitat proclivities of each. It is concluded that *T. flavodiscum* is a relatively uncommon, well-marked species that mostly occurs in deep sandy soils, while *T. filifolium* is a species of calcareous soils, the two taxa rarely occurring in close proximity. A map showing the distribution of *T. flavodiscum* is provided, along with comments upon new distributional records of the taxon in Arkansas and Louisiana.

**KEY WORDS:** Asteraceae, *Thelesperma*, Texas, Arkansas, Louisiana.

---

Strother (2006), in his treatment of *Thelesperma* for the Flora of North America maintained the species, *T. flavodiscum* (Shinners) B.L. Turner, but with the admonition, "Differences between *Thelesperma flavodiscum* and *T. filifolium* are subtle; they may be better treated as one species." The distinctions between the latter two taxa are scarcely subtle, as well documented by Melchert (1963), whose doctoral thesis on *Thelesperma* (albeit unpublished) was not cited by Strother. The latter author does, however, point out the major differences that mark the species, including that of habit (robust plants mostly 0.5-1.5 m high, vs 10-40 cm) and habitat (deep sandy soils vs clays or silty-clays). Observation of plants in the field by the present author show that the two taxa rarely, if ever, grow intermixed, although their distributions are partially sympatric, largely because of the disjunct distribution of *T. filifolium* populations in clay outliers within the sandy forest lands of eastern Texas, as correctly noted by Melchert

(1963). At the time of Melchert's study, relatively few collections of *T. flavodiscum* were available in herbaria, and his distribution map of the taxon was necessarily limited. I include here (Fig. 1) a map showing the distribution of *T. flavodiscum*, this based upon the cited specimens of Melchert (1963) and plants assembled at LL, TEX since his study.

It will be noted, as mapped by the present author, that *T. flavodiscum* is now known from the closely adjacent states of ARKANSAS (Hempstead County, *Kral 65476*, TEX; Miller County, *Thomas et al. 151,334*, TEX) and LOUISIANA (Caddo Parish, *Thomas et al. 120,635*, TEX). The Hempstead Co. collection from Arkansas was reportedly obtained from a "chalk outcrop," but perhaps not. As already noted, chalk or calcareous outcrops in Texas harbor plants of *T. filifolium*, these growing within the range of *T. flavodiscum*, presumably in close proximity of each other. It is possible that hybrids between these very different taxa occur upon occasion in such areas. Indeed, the cauline leaves of occasional plants of *T. filifolium* in eastern Texas (and eastern Oklahoma) resemble those of *T. flavodiscum*, but the flowering material of the former are typical of *T. filifolium*, possessing sulphur-yellow rays (vs yellow, the disc florets brownish to purplish-brown (vs yellow), not to mention the habitual differences.

Finally, it should be noted that *Thelesperma flavodiscum* is relatively rare in eastern Texas, and presumably becoming more so. Attempts to collect again from two previously collected populations of the species in Wilson County Texas (Melchert, in 1962; Turner, in 1965) proved futile in the spring of 2007. Indeed, attempts to re-collect from a population of the species obtained in 1988 from Medina County by Orzell & Bridges (6728 TEX) also proved profitless, this from a well documented locale (roadside park along IH 35 in Carrizo sands). Perhaps *T. flavodiscum* was rare at these several sites to begin with, but I suspect that continual mowing of the roadsides by the Highway Dept. of the State of Texas over the years concerned has been a factor in their disappearance.

#### ACKNOWLEDGEMENTS

I am grateful to my son Matt Turner and his partner, Paul Waller, for assisting me with field work during the spring of 2007.

**LITERATURE CITED**

Melchert, T.E. 1963. Systematics of the genus *Thelesperma*. Ph.D. dissertation, The University of Texas, Austin  
Strother, J.L. 2006. *Thelesperma*, in *Fl. N. Amer.* 21: 199-203.

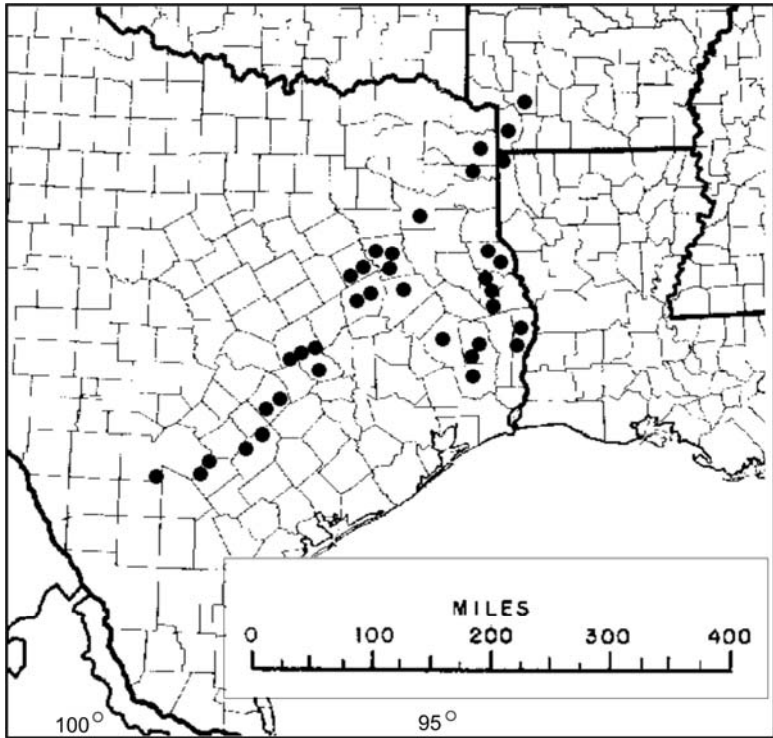


Fig. 1. Distribution of *Thelesperma flavodiscum*.