

TAXONOMY AND NOMENCLATURE OF *SCHKUHRIA PINNATA*
(ASTERACEAE, HELENIEAE)

B.L. Turner

Department of Botany, University of Texas, Austin, Texas 78713 U.S.A.

ABSTRACT

Schkuhria pinnata is treated as having two varieties, one in South America (var. *pinnata*), and one in North America (var. *wislizeni* [A. Gray] B.L. Turner, *comb. nov.*). A complete synonymy for the North American elements of *S. pinnata* is given, along with a map showing their distribution.

KEY WORDS: Asteraceae, Helenieae, *Schkuhria*, systematics

Schkuhria is a weedy genus of about five species. One of these, *S. pinnata* (Lam.) Kuntze ex Thell., is a widespread highly variable weedy species of North and South America, which has received varying taxonomic treatments. The species is typified by elements from South America and plants from that continent, if treated as a single infraspecific taxon, are properly called var. *pinnata*. The North American elements of *S. pinnata* have received numerous treatments and epithets, and these are largely accounted for by Rydberg (1914), Heiser (1945), Blake (1951) and McVaugh (1984). McVaugh, in particular, has presented a masterful account of *S. pinnata* in his treatment for the flora of Novo-Galician, recognizing two varieties, as follows:

- 1. Involucral bracts mostly dark red or purplish throughout (rarely not); hairs on angles of achenes 0.6-1.8 mm long.var. *guatemalensis*
- 1. Involucral bracts mostly green (sometimes the upper 1/3 reddish); hairs on angles of achenes 0.3-0.6 mm long. var. *virgata*

For the reasons given below, I can recognize but a single varietal taxon of *Schkuhria pinnata* in North America, this being *Schkuhria pinnata* (Lam.) Kuntze ex Thell. var. *wislizeni* (A. Gray) B.L. Turner, *comb. nov.*, based upon *Schkuhria wislizeni* A. Gray, Mem. Amer. Acad. Sci. 4:96. 1849. The purpose of the present paper, then, is to account for the synonymy of the two varieties recognized by McVaugh, and to justify the synonymizations of all of the formal infraspecific epithets of North America with the earliest available varietal epithet, var. *wislizeni*.

SCHKUHRIA PINNATA (Lam.) Kuntze *ex* Thell., Repert. Sp. Nov. 11:308. 1912.

SCHKUHRIA PINNATA (Lam.) Kuntze *ex* Thell. var. *GUATEMALENSIS* (Rydb.) McVaugh, Contr. Univ. Michigan Herb. 9:443. 1972.

Hopkirkia anthemoidea DC.

Schkuhria anthemoidea (DC.) Coult. var. *guatemalensis* (Rydb.) Heiser

Schkuhria anthemoidea (DC.) Coult. var. *wrightii* (A. Gray) Heiser

Schkuhria guatemalensis (Rydb.) Standl. & Steyerl.

Schkuhria hopkirkia A. Gray

Schkuhria pinnata (Lam.) Kuntze *ex* Thell. var. *guatemalensis* (Rydb.) McVaugh

Schkuhria wislizeni A. Gray var. *wrightii* (A. Gray) S.F. Blake

Schkuhria wrightii A. Gray

Tetracarpum guatemalense Rydb.

Tetracarpum wrightii (A. Gray) Rydb.

SCHKUHRIA PINNATA (Lam.) Kuntze *ex* Thell. var. *VIRGATA* (Llave) Heiser, Ann. Missouri Bot. Gard. 32:271. 1945.

Mieria virgata Llave

Schkuhria anthemoidea (DC.) Coult. var. *wislizeni* (A. Gray) Heiser

Schkuhria anthemoidea (DC.) Coult. var. *wislizeni* f. *flava* (Rydb.) Heiser

Schkuhria pringlei S. Wats.

Schkuhria pinnata (Lam.) Kuntze *ex* Thell. var. *virgata* f. *pringlei* (S. Wats.) Heiser

Schkuhria virgata (Llave) DC.

Schkuhria wislizeni A. Gray

Schkuhria wislizeni A. Gray forma *flava* (Rydb.) S.F. Blake

Schkuhria wislizeni A. Gray var. *frustrata* S.F. Blake

Tetracarpum anthemoideum (DC.) Rydb.

Tetracarpum flavum Rydb.

Tetracarpum pringlei (S. Wats.) Rydb.

Tetracarpum wislizeni (A. Gray) Rydb.

As shown in Figure 1, when mapped (mostly using achenal pubescence, *cf.* Figure 2), the two taxa recognized by McVaugh have essentially identical distributions. Indeed, varying intermediates between the two extremes occur (so annotated at LL, TEX) and occasional specimens will have typical forms of each mounted upon the same sheet, suggesting that all of these represent but a single variable species. McVaugh (1984) also commented upon this phenomenon noting that in Nueva Galicia these two extremes "are scarcely separable but seem to have somewhat different habitat-preferences and different geographical extremes. They were maintained as different species by Rydberg (1914) and Heiser (1945) but the characters by which they are separated vary and recombine so capriciously that it may be unrealistic to maintain them at the level of varieties." However, I was unable to document the existence of habitat preferences for the two forms, nor could I infer any difference in their geographical extremes in North America as shown in Figure 2, consequently I have no hesitancy in treating these as but variable elements of a wide-ranging polymorphic species, as McVaugh suspected might be the case.

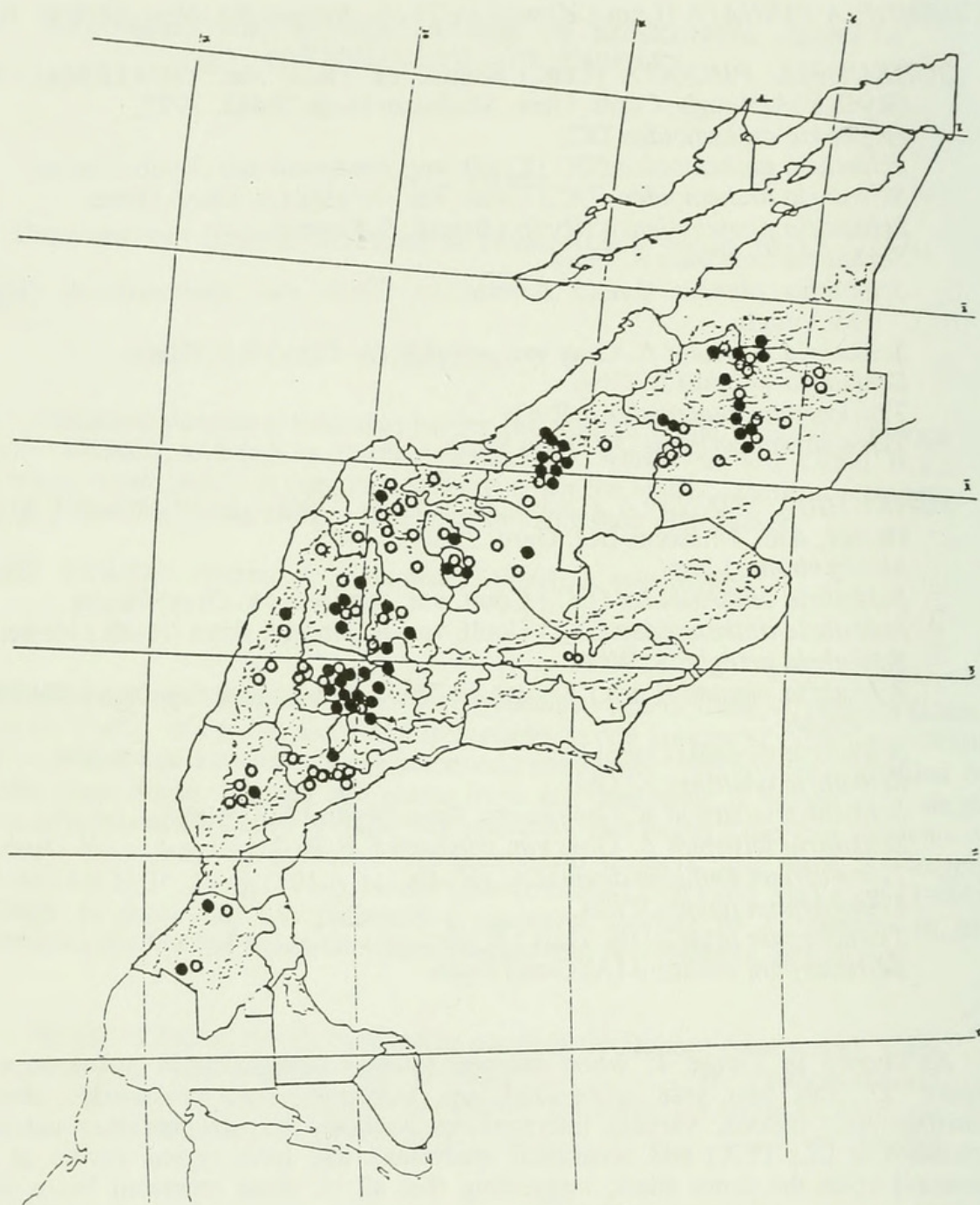


Figure 1. Distribution of achenal forms or "varieties" of *Schkuhria pinnata* (sensu McVaugh 1984) in México: var. *guatemalensis* (open circles) and var. *virgata* (closed circles). Numerous intermediates are treated as one or the other, according to length of the achenal hairs as given in McVaugh's key.



Figure 2. Head and floret variation in *Schkuhria pinnata* var. *wislizeni*. Upper row, left to right, head, achene ray floret, disk floret, style branches of disk floret (Pringle 13566 [LL]); middle row (Ellison 20 [TEX]); lower row (with ray florets absent, Pringle 13567 [TEX]).

The North American populations and or individuals of *Schkuhria pinnata* are very similar to those of South America, but can be readily distinguished from the latter by possessing mostly shorter elliptic-ovate ligules (0.5-1.0[-3.0] mm long, vs. linear and 2.0-4.0 mm long) and achenes with mostly very pubescent angles (vs. weakly pubescent to nearly glabrous). If a single varietal name is to be applied to the North American elements the correct name must be *S. pinnata* var. *wislizeni* (A. Gray) B.L. Turner, as noted above. Heiser (1945) treated all of the North American infraspecific categories which he recognized as belonging to *S. anthemoidea*, this based upon an inadequate interpretation of the type of the latter, as noted by Blake (1951).

Schkuhria pinnata var. *pinnata*, so far as known, is confined to South America, but the occasional waif or garden weed of var. *pinnata* has been collected in the northeastern U.S.A. (e.g., Milton, Mass., *Kidder s.n.* [LL]). The var. *wislizeni* is confined to North America, so far as known.

The present study is based upon a large suite of collections at LL., TEX (200+ sheets), all of these appropriately annotated, both as to variety and forma.

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