

## Notes on Texas Compositae — VIII<sup>1</sup>

Lloyd H. Shinnery

SOLIDAGO DELICATULA Small, Bull. Torr. Bot. Club 25: 474. 1898. Type (not seen) from near Paris, Lamar Co., Texas. *S. ulmifolia* var. *microphylla* Gray, Syn. Fl. N.A. 1 pt. 2: 153. "Texas, Lindheimer, Wright." *S. microphylla* Engelm. ex Small, Fl. S.E. U.S. 1198. 1903. "In dry soil, Kansas to Arkansas and Texas." It was probably not mere coincidence that Gray and Engelmann employed the same epithet, but which man originated it is not evident from the references cited. Gray does not mention Engelmann, and Engelmann himself did not publish the species credited to him by Small, who in turn makes no reference to Gray. Small maintained both *S. microphylla* and *S. delicatula* in his Flora, distinguished by the "slightly pubescent" inflorescence of the former and "glabrous" inflorescence of the latter. The recognition of two species is certainly not warranted on this basis. *Solidago delicatula* is a common plant of thickets or sometimes open ground, in both sandy and clayey soils, in central and northeastern Texas. Neither of the specific names applied to it is appropriate; the leaves are not very small, and the plant is rather stout.

ERICAMERIA triantha (Blake) Shinnery, comb. nov. *Aplopappus trianthus* Blake, Journ. Wash. Acad. Sci. 28: 485. BREWSTER Co.: infrequent perennial, on limestone wastelands 1 mile beyond Tornillo Flats toward the Chisos Mountains, Big Bend Nat. Park, alt. 3500 feet, Barton H. Warnock 9634, Sept. 6, 1950. The type (not seen) was also collected by Dr. Warnock, "along road from Study Butte to Terlingua, Chisos Mountains area," Aug. 31, 1937.

CROPTILON DIVARICATUM (Nutt.) Raf., Fl. Tell. 2: 47. 1837 (dated 1836). In publishing new names under *Isopappus divaricatus* (Nutt.) T.&G. (Field & Lab. 18: 156-157, 1950), I carelessly overlooked Rafinesque's genus, and have been guilty of cluttering the already over-burdened synonymy of the Compositae with more superfluous names. Since Rafinesque's genus antedates that of Torrey and Gray by five years, the following new combinations are necessary:

<sup>1</sup>Cited specimens are in the Herbarium of Southern Methodist University unless otherwise indicated.

**CROPTILON DIVARICATUM** var. **hirtellum** (Shinners) Shinners, comb. nov. *Isopappus divaricatus* var. *hirtellus* Shinners, Field & Lab. 18: 157. 1950.

**CROPTILON DIVARICATUM** var. **Hookerianum** (T.&G.) Shinners, comb. nov. *Isopappus Hookerianus* T.&G., Fl. N.A. 2: 239. 1842. *Croptilon Hookerianum* (T.&G.) House, Bull. N.Y. State Museum 233-234: 61. 1922. *Isopappus divaricatus* var. *Hookerianus* (T.&G.) Shinners, Field & Lab. 18: 157. 1950.

**ASTER TENUIFOLIUS** L. A species of the Atlantic Coast, reported from as far west as Mississippi, but early collected in Texas. GALVESTON CO.: Evergreen Ranch, Galveston Island, J. F. Joor, Sept. 20, 1884.

**ERIGERON MODESTUS** Gray, Pl. Fendl. (Mem. Amer. Acad. n.s. 4): 68. 1849. Type from New Braunfels, Comal Co., Texas, *Lindheimer* (topotypes and probable isotypes examined, Herb. S.M.U. and Herb. Mo. Bot. Gard.). *E. nudiflorus* Buckley, Proc. Acad. Phila. 13 (1861): 456. 1862. "Northern Texas. May." *E. divergens nudiflorus* (Buckley) A. Nels., Coult. & Nels. New Man. Rocky Mt. Botany 529. 1909. (As to name on which based, not as to plant described; Nelson gives the range as "Colorado to Arizona," excluding the type locality.) *E. plateauensis* Cronquist, Brittonia 6: 253-254. 1947. TYPE: grounds of Substation No. 14, Edwards Co., Texas, V. L. Cory 48756, March 29, 1945 (isotype, numbered 48755, SMU; topotypes, Cory 52480, Oct. 5, 1946, and Cory 52484, Oct. 6, 1946, SMU, showing autumnal growth phase.) Probably *E. commixtus* Greene, Pittonia 5: 58-59, 1902 (type from Limpia Canyon), and *E. Tracyi* Greene, l.c. (type from Davis Mts.) are to be referred here also. This species, like *Leucelene ericoides* (Torr.) Greene, exhibits extraordinary seasonal polymorphy, the different growth forms furnishing the basis for describing several supposedly distinct species. The plant is perennial from a rather woody taproot, and produces two main crops of stems. The first begins to flower in March and April, with crowded, deeply lobed basal leaves and peduncles naked for 4-12 cm. During late spring and summer it develops into a bushy-branched plant, the basal leaves withering. By fall (September to November) it produces a bushy mass of often sprawling or decumbent, much-branched stems, with narrow entire leaves only, and smaller heads on peduncles naked for 3.5-8

cm. The beginnings of the fall crop of stems are usually in evidence at the base of the plant in early summer, when the second growth phase (older stage of spring crop) is at its peak. Buckley speaks of the leaves as all entire, but this is not commonly true in the early form. Differences in pubescence (appressed vs. spreading) emphasized by Dr. Cronquist do not show geographic localization, and I believe are not of taxonomic importance. *Erigeron modestus* is rather common on the Edwards Plateau, northeast (in the Lampasa Cut Plain of the physiographers) as far as Somervell County, northward into the Panhandle, and west to the Trans-Pecos. Its occurrence in "Somerville County, West Texas" was questioned by Cronquist because Somervell County is not in western Texas. It was common in early days, however, to refer even to Austin and San Antonio as "West Texas," in contrast with areas near the Louisiana border. The phrase is misleading applied to present day Texas. The following collection verifies the northeastern occurrence of the species. SOMERVELL Co.: 3 miles southwest of Glen Rose, *Shinners 12174*, April 2, 1950.

BERLANDIERA BETONICIFOLIA (Hook.) Small, Fl. S.E. U.S. 1246 and 1340. 1903. *Silphium betonicifolium* Hook., Comp. Bot. Mag. 1: 99. 1835. Type (not seen) collected by Drummond at New Orleans, Louisiana. This species is omitted from the Cory & Parks catalogue. The four species of north and east Texas may be distinguished as follows:

- 1a. Leaves evenly and coarsely toothed
- 2a. Stems and underside of leaves densely pubescent with erect or spreading, straight or curled hairs
- 3a. Stems with 28-43 leaves below inflorescence, all but those in the lower third sessile; Grand Prairie westward  
—*B. texana* DC.
- 3b. Stems with 10-33 leaves below inflorescence, all but the uppermost short-petioled; E. Pine Belt eastward  
—*B. betonicifolia* (Hook.) Small
- 2b. Stems and underside of leaves white with close, matted, felty pubescence .....*B. dealbata* (T.&G.) Small
- 1b. Leaves deeply pinnatifid or lyrate-pinnatifid.....*B. lyrata* Benth.

BAHIA NEOMEXICANA Gray, Proc. Amer. Acad. 19: 27. 1883. *Schkuhria neomexicana* Gray (as *Neo-Mexicana*), Pl. Fendl. (Mem. Amer. Acad. n.s. 4): 96. 1849. *Amblyopappus neomexicanus* Gray in Torr., Rept. Explor. & Surv. ... (Pacific R.R. Reports) 4: 106. 1856. *Achyropappus neomexicanus* Gray ex Rydb., Fl. Colo. 377. 1906. *Cephalobembix neomexicanus* (Gray) Rydb., N. Amer. Fl. 34: 46. 1914. BREWSTER Co.: Chisos Mountains, *C. H. Mueller 8232*, Aug.

18, 1931. Frequent annual in igneous soil along trail to South Rim, above the Boot Springs, Chisos Mountains, alt. 6500 feet, Warnock 9721, Sept. 10, 1950. I do not agree with Dr. Heiser's treatment of this species as a *Schkuhria*, and question his placing it in synonymy under the South American *S. multiflora* Hook. & Arn. (Ann. Mo. Bot. Gard. 32: 274-275, 1945). Gray's final judgment, placing it with *Bahia* because of the many-flowered instead of few-flowered heads, is amply supported by the shape of the corollas. In the exceedingly similar but radiate *B. Bigelovii* Gray (which not even Rydberg removed from *Bahia*), the disk corollas have a well-marked cylindrical tube, campanulate or cyathiform limb, and spreading to recurved lobes, the same type found in *B. neomexicana*. In *Schkuhria anthemoidea* var. *Wrightii*, the disk corollas are nearly columnar, without clear differentiation of tube and limb, and with erect or slightly spreading lobes. Heiser speaks of *S. multiflora* as "more or less decumbent"; *Bahia neomexicana* is erect. Gray himself noted the similarity of the two species, but considered them distinct because of the awned pappus scales of the South American plant (said by Heiser to be usually awnless). Possibly the two are no more than varietally distinct, but if they are combined, it certainly should be under *Bahia*, not under *Schkuhria*.

**CENTAUREA CYANUS L.** This European annual is not listed in the Cory & Parks catalogue. Often cultivated, it self-sows readily; in Dallas and elsewhere in northern Texas, I have observed it renewing itself for five successive years in waste places. It may be added to the remarkably small but growing list of alien weeds in Texas. KAUFMAN Co.: in Kemp, along street and in grassy vacant lot, Shinnery 10049, May 8, 1948. (Observed at the same place in 1947, and each year from 1948 to 1951.) VAN ZANDT Co.: Canton, about two blocks north of court house; a colony along sidewalk as an escape from cultivation, Cory 57053, April 12, 1950. WALLER Co.: 1½ miles north of Hempstead; frequent in junction of highways, and evidently planted by State Highway Department, Cory 54254, April 9, 1948.