

## Notes on Texas Compositae — IX

Lloyd H. Shinnors

For the long-term loan of a number of selected specimens, particularly of the genus *Aster*, I am indebted to Dr. Robert E. Woodson, Jr., of the Missouri Botanical Garden, and to Dr. Reed C. Rollins, of the Gray Herbarium. When not otherwise stated, types and cited specimens in the following notes are in the Herbarium of Southern Methodist University.

*SOLIDAGO PETIOLARIS* Ait. var. *PETIOLARIS*. Pubescence of stem and leaves rather soft; stem leaves sessile, with oblong-lanceolate or elliptic-lanceolate blades, the middle ones mostly 2-4 times as long as wide; inflorescence normally sharply delimited, with reduced leafy bracts abruptly much smaller than the upper leaves. Sandy pine woods or oak woods, eastern Texas; collections from Freestone, Henderson, Leon, Nacogdoches, Rusk, and Wood counties. In the Gulf Southwest this species is represented by a complex group of forms which have received quite diverse treatments by various taxonomists. They are here regarded as three varieties of one species, although no one distinguishing feature is constant for any variety, and intermediate or atypical plants (usually due to injury) are frequent.

*SOLIDAGO PETIOLARIS* var. *ANGUSTA* (T.&G.) Gray, Proc. Amer. Acad. 17: 189. 1882. More fully described in Syn. Fl. N.A. 1 pt. 2: 145, 1884, where cited from Fredericksburg (Gillespie Co.), Texas (specimen not seen, but almost certainly to be referred to the next variety). *S. angusta* T.&G., Fl. N.A. 2: 204. 1842. "Alexandria, Western Louisiana, *Dr. Hale!* Arkansas near the Hot Springs, *Dr. Engelmann!*" Stems glabrous except in the upper part, leaves glabrous except on the margins; stem leaves subsessile, with lanceolate blades, the middle ones mostly 4-6 times as long as wide; inflorescence with large leafy bracts or small leaves in basal portion. Not definitely known from Texas, but to be expected in the extreme northeastern counties; collections seen from southeastern Oklahoma (McCurtain Co., *Waterfall 9871*) and Arkansas (Marion Co., *Demaree 28562, 30080, 30118*).

*SOLIDAGO PETIOLARIS* var. *WARDII* (Britton) Fernald, *Rhodora* 10: 87. 1908. *S. Wardii* Britton, Man. p. 935. 1901. "Type collected by L. F. Ward, in Clark Co., Kansas, Oct.

2, 1897" (not seen). *S. Lindheimeriana* Scheele, *Linnaea* 21: 599. 1848. Pubescence of stem and leaves stiff, scabrous, or plant almost smooth; stem leaves sessile, with elliptic-lanceolate blades, the middle ones mostly 2-4 times as long as wide; inflorescence usually with large bracts or leaves in basal portion, but sometimes as abruptly differentiated as in var. *petiolaris*. Rocky or sandy open ground, East Cross Timbers westward; specimens from Comanche, Cooke, Donley, Montague, Palo Pinto, and Tarrant counties. Frequent in Oklahoma. Included by Cronquist (*The New Britton & Brown Illustrated Flora* 3: 424, 1952) in the preceding, retained as a species, but certainly not the same, and hardly specifically distinct from *S. petiolaris*. Britton himself reduced it outright to a synonym of the latter (*Ill. Fl.* ed. 2).

ASTER TEXANUS Burgess var. **parviceps** Shinnery, var. nov. Involucris minoribus 3.8-4.2 mm. altis 4-6 mm. latis. TYPE: Lewis Ferry, 8 miles north of New Boston, Bowie Co., *Eula Whitehouse 20503*, Sept. 29, 1948. The heads of var. *texanus* are larger, the involucre 4.2-5.2 mm. high, 6-9 mm. broad. Three additional specimens of var. *parviceps* have been seen. ARKANSAS. MARION Co.: Peel, Bull Shoals Dam Reservoir, *Demaree 30037*, Sept. 24, 1950. TEXAS, BOWIE Co.: Aiken Creek, south of Highway 67, *Whitehouse 20466, 20469*, Sept. 28, 1948.

ASTER **scabricaulis** Shinnery, sp. nov. Ser. *Punicea*. Rhizomatosa, caule scabro, nodis 25-35, internodiis superioribus 1.5-4.5 cm. longis; foliis oblongo-lanceolatis integris vel subserratis ambitu scabris vel subter glabris; involucris 7-8 mm. altis, phyllariis multiseriatis lanceo-linearibus attenuatis, nullis foliosis. Rhizomatous perennial, erect or half-reclining on other plants; stems 1.4-1.8 m. long, with branches from middle or below (these up to 35 cm. long, sparingly re-branched), scabrous-pubescent throughout; nodes about 25-35, middle and upper internodes 1.5-4.5 cm. long. Stem leaves withering early, oblong-lanceolate, acute, entire or very shallowly toothed, sessile and clasping the stem about half way, scabrous-pubescent on both surfaces or nearly glabrous beneath, 2 cm. wide by 7 cm. long (measurement from one partly withered leaf); leaves of branches similar, much smaller, rather numerous and uniform. Inflorescence corymbose-paniculate, open; heads rather numerous and crowded, the peduncles 3-12 mm. long. Involucres

conical-hemispheric, 7-8 mm. high; phyllaries lance-linear, acuminate, in about 5-7 rows, subequal, loosely spreading or squarrose, none foliaceous except for the elongate slender tips. TYPE: 16 miles northwest of Tyler, Smith Co., *Shinners 9504*, Oct. 19, 1947. One additional collection. VAN ZANT Co.: 3.7 miles southeast of Ben Wheeler, *Howell V. Daly 157*, Oct. 12, 1952. Growing in boggy ground, like its near relatives *A. puniceus* (which lacks rhizomes, has fewer nodes, and more or less foliaceous outer phyllaries), *A. lucidulus* (which has short upper internodes, a dense and compact inflorescence, and usually slightly foliaceous or elongate outer phyllaries), and *A. nebraskensis* (which has shorter stems with fewer nodes, and smaller heads with phyllaries in few rows). None of the allied species is known to occur nearer than Kansas and central Arkansas. *A. scabricaulis* is not the same as Wiegand's *A. praealtus* var. *subasper* (*Rhodora* 37: 24-25, 1935), which includes forms of *A. praealtus* (as to Texas records), but was probably a hybrid involving *A. lucidulus* (as to type, from near St. Louis; Illinois collections strongly suggest such an origin). Future revision of the *A. puniceus* complex may reduce the new species to varietal rank, but it appears about equally related to the three named above.

ASTER HESPERIUS Gray. *A. coerulescens* of authors, not DC. In pointing out that the type of *A. coerulescens* was actually *A. praealtus* Poir. (*Rhodora* 51: 91-92, 1949), I stated that so-called *A. coerulescens* (i.e., *A. hesperius*) might occur in Trans-Pecos Texas, but that no specimens had been seen from the state. The following can now be cited. JEFF DAVIS Co.: Musquiz swamp, 7 miles south of Ft. Davis, Davis Mountains, *Barton H. Warnock 7635*, Oct. 14, 1937.

ASTER LATERIFLORUS (L.) Britton var. *flagellaris* Shinners, var. nov. Foliis subter omnino glabris, caule infra medium ramoso ramis longissimis divaricatis arcuatis. TYPE: 2.5 miles southeast of Eustace, Henderson Co., *Shinners 9589*, Nov. 2, 1947. Resembling one of the long-branched varieties of *A. dumosus* L., but with deeply lobed disk corollas, and without rhizomes. A common plant of thickets or low open ground in eastern Texas. Normally developed plants are very distinctive, appearing to consist largely of inflorescence, with conspicuous, elongate, rather

widely spaced branches nearly throughout. Injured plants are often difficult to recognize, and apparent hybrids with *A. dumosus* var. *coridifolius* and *A. Eulae* occur. Var. *lateriflorus* (including var. *angustifolius* and var. *pendulus* of Wiegand's treatment; see *Rhodora* 30: 164 and 172-174, 1928) has leaves pubescent on the midrib beneath, and fewer, shorter branches. Additional characteristic collections of var. *flagellaris* have been seen from Oklahoma and Texas:

OKLAHOMA. MCCURTAIN Co.: 3 miles south of Broken Bow, *Waterfall* 11157. TEXAS. ANDERSON Co.: 3½ miles north-northwest of Montalba, *Shinners* 9611. CASS Co.: 6.5 miles east of Hughes Springs, *Whitehouse* 17690. FANNIN Co.: 4.6 miles north of Bonham, *Shinners* 11995. FREESTONE Co.: 14½ miles south of Fairfield, *Shinners* 11826. HOPKINS Co.: southeast of Pickton, *Whitehouse* 17570. KAUFMAN Co.: 9¼ miles east of Kaufman, *Shinners* 10604. MONTGOMERY Co.: 2¼ miles south of Conroe, *Cory* 50688. MORRIS Co.: Daingerfield State Park 2 miles southeast of Daingerfield, *Whitehouse* 17623. SMITH Co.: 16 miles northwest of Tyler, *Shinners* 9816. TITUS Co.: north bank of Cypress Creek east of Pittsburg, *Whitehouse* 17614. TYLER Co.: 9½ miles west by south of Spurger, 1½ miles south of Hillister Road, *Cory* 59183. VAN ZANDT Co.: 10 miles east of Wills Point, *Shinners* 9486. WALKER Co.: 3½ miles east of Huntsville, *Cory* 50642. WOOD Co.: 4½ miles east of Winnsboro, *Whitehouse* 17583.

ASTER LATERIFLORUS var. *indutus* Shinners, var. nov. Foliis subter puberulis super dense scabris. TYPE: Daingerfield State Park 2 miles southeast of Daingerfield, *Whitehouse* 17641, Oct. 31, 1946. "Rays white, disk florets cream colored; sandy loam, low grounds in shade of pines." Known only from the type specimen, which has very short branches (up to 2.5 cm. long); placed with this species because of the deeply lobed disk corollas and absence of rhizomes.

ASTER PILOSUS Willd. var. PILOSUS. An eastern and Mid-Western species, known in Texas only from DALLAS Co.: Forest Hills, *Norma Stillwell*, September, 1946. Erroneously reported by Cory & Parks from the Edwards Plateau and Trans-Pecos.

ASTER SUBULATUS Michx. var. *australis* (Gray) Shinners, comb. nov., *A. exilis* var. *australis* Gray, Syn. Fl. N.A. 1 pt. 2: 203. 1884. Though Gray cited this primarily from Oregon and California, it is fairly definite from the choice of epithet and phraseology that he intended the name to characterize the Latin American race ("the commoner Mexican and S. American form . . . (Mex. to Chili, Brazil, &c.)"). Later authors have consistently interpreted it in this way (e.g., Hieronymus, Bot. Jahrb. 29: 19, 1900; Cabrera, Rev. Mus. de La Plata n.s. IV secc. Bot., pp. 69-70, 1941; both

listing var. *australis* as a synonym of *A. squamatus* (Spreng.) Hieron.). Said to be perennial in Argentina, but this is not evident from many herbarium specimens from South America, which are extraordinarily like the usually annual plants known in the United States as *Aster exilis* and *A. subulatus* var. *euroauster*. The rays are reduced (ligules 2-4 mm. long, 0.2-0.8 mm. wide), as usual in *A. subulatus*, but the phyllaries are broader and shorter-pointed, and the lower leaves are oblanceolate or spatulate rather than narrowly lanceolate or linear-lanceolate. I refer here several specimens from Florida (Apalachicola, Chapman, two sheets dated July, 1897, "Ballast ground," one without date, "A ballast weed" Herb. Mo. Bot. Gard.; Pensacola, A. H. Curtiss 6497, July 27, 1899, Gray Herb.), and one collection from Texas. GALVESTON Co.: Galveston, damp sands along the streets, J. Reverchon (*Tex. Fl.* 2317, R. no. 3319), Aug. 8, 1902, Herb. Mo. Bot. Gard. The plant is evidently found in the United States only as an introduction, though it occurs as a native from Mexico southward.

ASTER SUBULATUS var. *ligulatus* Shinnery, var. nov. Ligulis 4-9 mm. longis 1-1.8 mm. latis. TYPE: 6.9 miles southwest of Hillsboro, Hill Co., Shinnery 12057, Oct. 23, 1949. This is the plant usually known as *Aster exilis* Elliott, Sk. Bot. S.C. & Ga. 2: 344-345, 1824. According to Gray, Elliott's type was lost very early, and the application of the name to the showy-rayed ally of *A. subulatus* (not differing from var. *euroauster* Fernald & Griscom in any significant particular except the conspicuous ray florets) was really a matter of conjecture ("believed to be" the plant so-called, in Gray's words). I strongly suspect that Elliott actually had one of the varieties of *A. dumosus* instead. His description, though fairly long, is not conclusive. *Aster subulatus* var. *ligulatus* occurs throughout Texas, and is one of our commonest annual weeds, primarily of stream bottoms or low grounds, but abundant in waste places, along highways and streets, and even in lawns, where it continues to flower freely in spite of mowing or trampling. The principal flowering season is late summer and fall, but occasional plants can be found in flower every month of the year; it may survive two years when winters are mild. In addition to many collections from Texas (including the Panhandle and the Trans-Pecos), specimens have been seen from Oklahoma, Arkansas, Louisi-

ana, and Alabama (Greene, Tuscaloosa, and Wilcox counties, all in the interior); and from Matamoros, Tamaulipas, Mexico (*Berlandier 2339*, Herb. Mo. Bot. Gard.).

DOELLINGERIA UMBELLATA (Mill.) Nees var. LATIFOLIA (Gray) House, Bull. N.Y. State Museum 254: 712. 1924. *Aster umbellatus* var. *latifolius* Gray, Syn. Fl. N.A. 1 pt. 2: 197. 1884. "Low pine barrens, &c., Penna. and New Jersey to Florida and Texas." *Doellingeria sericocarpoides* Small, Bull. Torr. Bot. Club 25: 620. 1898. "In low grounds, Arkansas and Texas. . . The original specimens were collected by Mr. A. A. Heller, near Texarkana, Miller County, Arkansas, in August and September, 1898, no. 4137" (not seen). Extending southwestward in boggy ground in the Pine Belt. FREESTONE Co.: 14½ miles south of Fairfield, *Shinners 11823*, Oct. 2, 1949. NACOGDOCHES Co.: about 9 miles south of Nacogdoches, *Whitehouse 11075*, Sept. 24, 1938.

GALINSOGA SEMICALVA (Gray) St. John & White, *Rhodora* 22: 100. 1920. Cited by the authors of the new combination from New Mexico, Arizona, Chihuahua, and San Luis Potosi; Texas can be added. JEFF DAVIS Co.: Davis Mountains, *M. S. Young*, Aug. 21, 1914. Davis Mountains, high south slope, Mt. Livermore, alt. about 8000 ft., numerous at higher altitudes, *L. C. Hinckley 360*, Aug. 21, 1935. Not included in the Cory & Parks catalogue, which reports *G. ciliata* (Raf.) Blake from extreme southern Texas. I have seen no Texas collections of that species, which is a common introduction in the northern states.

SOLIVA PTEROSPERMA (Juss.) Less. *S. sessilis* of authors, not R.&P. (Cf. Cabrera, Sinopsis del Genero Solvia (Compositae), Notas del Museo de La Plata XIV. Botanica 70: 131, 1949) AUSTIN Co.: San Felipe, *B. C. Tharp*, April 8, 1939. ROBERTSON Co.: in Hearne, lawn weed, *Shinners 14553*, May 14, 1953. Not listed by Cory & Parks. This was collected near Vicksburg, Mississippi, in 1921 (*L. J. Pessin*, Herb. Mo. Bot. Gard.), and at Tallahassee, Florida, in 1930 (*R. M. Harper*, Herb. Mo. Bot. Gard.); it appeared in Louisiana by 1929 (according to Clair Brown, *Torreya* 29: 155, 1929). All four Texas species of *Soliva* are introduced from South America.

SOLIVA STOLONIFERA (Brot.) Loudon. *S. nasturtiifolia* (Juss.) DC. *Gymnostyles nasturtiifolia* Juss. HARDIN Co.: about 2 miles south of Saratoga near old homestead, *White-*

*house 25018*, April 18, 1951. This species was reported from about Charleston, South Carolina, in 1860 (Chapman, Fl. S. U.S. p. 243). It was early collected in Louisiana by Joor (Baton Rouge, March 7, 1874; New Orleans, May 8, 1889) and by Trelease (Monroe, April 13, 1901) (Herb. Mo. Bot. Gard.). There is a specimen from Marshallville, Georgia, *J. L. Edwards*, April, 1891, in the University of Michigan Herbarium. Additional comments on its later spread have been given by Harper (Torreya 37: 104-106, 1937).

SOLIVA ANTHEMIFOLIA (Juss.) R. Br. *Gymnostyles anthemifolia* Juss. The earliest species introduced into Texas, the most widespread at present. BEE Co.: 4 miles southwest of Skidmore, *Cory 54130*, March 28, 1948. BRAZOS Co.: (?): "east line of county on Corn Farm" (no county mentioned), *H. B. Parks Rx 1603*, May 15, 1941 (Herb. Mo. Bot. Gard.). BROOKS Co.: Encino, *M. E. Jones 29479*, March 28, 1932 (Herb. Mo. Bot. Gard.). MONTGOMERY Co.: 4 miles south of Conroe, *Rogers McVaugh 6897*, May 16, 1945. NUECES Co.: Corpus Christi, *S. M. Tracy 8936*, April 4, 1905. SAN PATRICIO Co.:  $3\frac{3}{4}$  miles southeast of St. Paul, *Cory 55195*, March 30, 1949.

SOLIVA MUTISII H.B.K. I have seen no North American collections of this species; Cabrera (l.c., p. 135) cites the following from Texas. ATASCOSA Co.: 8 miles southwest of Somerset, *Kirn 12203*, June 4, 1935 (Herb. Museo de La Plata). Similar to *S. anthemifolia*; differing in being densely villous. Native of Colombia and Ecuador.

PRENANTHES SERPENTARIA Pursh var. BARBATA (T.&G.) Gray, Syn. Fl. N.A. 1 pt. 2: 434. 1884. *Nabalus Fraseri* var. *barbatus* T.&G., Fl. N.A. 2: 481. 1843. Based on *Prenanthes crepidinea* of Elliott, Sketch Bot. S.C. & Ga. 2: 259, 1822; not Michaux. "Collected by Dr. Macbride on the Saluda mountains," September (Elliott, quoted by T.&G.). The following collection apparently belongs to this variety. NACOGDOCHES Co.: 8 miles northeast of Nacogdoches, *Parks Rx. 1372*, Oct. 4, 1941. The genus has not previously been known from so far west as Texas.

ASTER SUBULATUS var. *cubensis* (DC.) Shinnars, comb. nov. *Tripolium? subulatum* var. *cubense* DC., Prodr. 5: 254. 1836. Based on *Erigeron expansus* Pöppig ex Spreng., Syst. Veg. 3: 518. 1826. "E. glaberrimus, foliis sessilibus inferioribus lineari-lanceolatis utrinque attenuatis serratis, super-

ioribus linearibus integerrimis, paniculae diffusae ramis squamatis, squamis anthodii hemisphaerici cuspidatis. *Cuba*." *Aster inconspicuus* Less., *Linnaea* 5: 143. 1830. Based on *Erigeron expansus* Pöppig ex Spreng. *Aster exilis* var. *inconspicuus* (Less.) Hieronymus, *Engl. Bot. Jahrb.* 29: 19. 1900. (*Sphalm. conspicuus*.) Based on *Aster inconspicuus* Less.—Among the collections in the Missouri Botanical Garden Herbarium is one from the Bernhardt Herbarium with a small tag reading "Erigeron expansum En. pl. Cub. MSS. In siccis calidis Cubae. Octbr." This consists of a section of stem taken in the lower part of a diffuse inflorescence. The larger leaves are obscurely and remotely toothed, up to 0.9 cm. wide by 13 cm. long, acuminate and with long-tapering, winged-petiole base. The specimen agrees with *Wright 2828*, from Cuba, in having larger, more pointed leaves and more slenderly pointed phyllaries than are characteristic of the form treated as var. *australis*. No specimens of var. *cubensis* have been seen from the North American continent.—It should be mentioned that three of the other varieties named by De Candolle on the same page with var. *cubense* (vars. *mexicanum*, *domingense*, and *brasilianum*) were not described and were not based on any previously published description; as *nomina nuda*, they have no claim to consideration under present rules of nomenclature. The one remaining variety for which a basonym was cited, var. *boreale*, being based directly on *Aster subulatus* Michx., would now be called var. *subulatus*.

## A New Wild Onion (*Allium Zenobiae*) from South-Central Texas

V. L. Cory

*ALLIUM Zenobiae* Cory, sp. nov. Ad *A. mobilense* Regel spectans, robustior; bulbus bulbillos sessiles gerens; umbella grandis usque 175-flora, tepalis lavandulis 6 mm. longis. TYPE: 2½ miles southwest of Giddings, Lee Co., Texas, *Cory 55759*, May 6, 1949 (in Herb. Southern Methodist University). Bulb ovoid, 10 mm. broad or more, the outer coats fibrous-reticulate, usually with a few (up to 7) sessile bulblets at base; bulblets ovoid, about 8 mm. long and 5 mm. broad; umbel large, up to 6 cm. across, with up to 175 flowers; perianth segments lavender, about 6 mm.