

- gefleckten Salamanders (*Ambystoma maculatus*) und der Tigersalamanders (*Ambystoma tigrinum*). Zeitschr. f. Zellforsch. u. mikr. Anat. 7:595-673.
122. UHLENHUTH, EDUARD. 1929.
Die Morphologie und Physiologie der Salamanderschilddrüse. V. Die Wirkung von anorganischen Jod auf die Schilddrüse des Tigersalamanders (*A. tigrinum*) und des amerikanischen gefleckten Salamanders (*A. maculatus*). Arch. f. Entwmech. d. Org. 115:184-236.
123. UHLENHUTH, EDUARD. 1934.
The Golgi apparatus in the thyroid gland of amphibians, in relation to excretion polarity. Quart. Jour. Micr. Science. 76:615-646.
124. UHLENHUTH, EDUARD & HILDA KARNS. 1928.
The morphology and physiology of the salamander thyroid gland. III. The relation of the number of follicles to development and growth of the thyroid in *Ambystoma maculatum*. Biol. Bull. 54:128-164.
125. UHLENHUTH, E., J. B. SCHEHTAL, J. U. THOMPSON, K. F. MECH & G. H. ALGIRE. 1945.
Colloid content and cell height as related to the secretory activity of the thyroid gland. I. In normal thyroids of *Triturus torosus*. Jour. Morph. 76:1-29.
126. UHLENHUTH, E., JOSEPH E. SCHEHTAL, JAMES U. THOMPSON, & RHEA LYON ZWILLING. 1945.
Colloid content and cell height as related to the secretory activity of the thyroid gland. II. The activated thyroid of *Triturus torosus*. Jour. Morph. 76:45-85.
127. UHLENHUTH, EDUARD & SAUL SCHWARTZBACH. 1928.
The morphology and physiology of the salamander thyroid gland. II. The anterior lobe of the hypophysis as a control mechanism of the function of the thyroid gland. Brit. Jour. Exp. Biol. 5:1-5.
128. UHLENHUTH, E. & S. SCHWARTZBACH. 1928.
Anterior lobe substance, the thyroid stimulator. I. Induces precocious metamorphosis. Proc. Soc. Exp. Biol. & Med. 26:149-151.
129. UHLENHUTH, E. & S. SCHWARTZBACH. 1928.
Anterior lobe substance, the thyroid stimulator. III. Effect of anterior lobe substance on thyroid gland. Proc. Soc. Exp. Biol. & Med. 25:152-153
130. VAN SWINDEREN, M. 1925.
Neotenische salamanders. Tijdschr. ned. dierk. Ver. Leiden 19:141-142.
131. VERSLUYS, J. 1925.
On the thyroid glands and on the phylogeny of the perennibrachiate and derotremous salamanders. Koninklijke Akademie van Wetenschappen te Amsterdam. 28:829-843.
132. VERSLUYS, J. 1931.
Over de schildklieren en over de phylogenie der perennibrachiate und derotremous salamanders. Akademie van Wetenschappen 34:557-572.
133. VIALLI, M. 1931.
Ricerche sulla metamorfosi degli anfibi. I. Innessi di tiroide di Triton alperstris neotenico e di Proteus anguineus. Boll. Soc. Ital. Biol. Sperim. 6:1049-1052.
134. WEBSTER, W. D. 1934.
The pharyngeal derivatives of *Necturus maculosus*. Stud. Univ. Nebraska Zool Lab. 179:1-72.
135. WEIGL, RUDOLF. 1913.
Ueber homoplastische und heteroplastische Hauttransplantation bei Amphibien unter besonderer Berücksichtigung der Metamorphose. Arch. f. Entwmech. d. Org. 36:595-625.
136. WILDER, H. H. 1891.
A contribution to the anatomy of *Siren lacertina*. Zool. Jahrb. 4:653-696.
137. WILDER, I. W. 1925.
The morphology of amphibian metamorphosis. Smith College, Northampton, Mass. 1925. pp. 1-161.
138. ZAWADOWSKY, B., N. A. RASPOPOVA, T. P. ROLITSCH, & E. W. UNANOWA-ZAWADSKAJA. 1928.
Ueber die Rolle der Jodkomponente in Thyroxinmolekül. Zeit. exp. Path. Ther. 62:27-34.

Botanical Notes

ASTRAGALUS NUTTALLIANUS DC. var. *zapatanus* Barneby, var. nov.
—Var. *trichocarpus* T.&G. legumine hirsutulo carinae acuta similis sed foliis omnibus cuneatis oblongo-cuneatisve retusis, necnon caulibus cum foliorum rachi laxe hirsutulis aberrans. Prostrate, stems 1.5–20 cm. long; stems and herbage hirsutulous with rather stiff ascending and incurved hairs up to 0.4–0.75 mm. long, the leaflets thinly pubescent or glabrous above; leaves 1.5–4 cm. long, with (7–)9–17 cuneate or oblong-cuneate retuse leaflets 2–6 mm. long. Peduncles 2–17 mm. long, 1–2-flowered; calyx 3.0–3.7 mm. long, the teeth 1.2–1.6 mm. long; petals whitish, lavender-tinged; banner (4.0–)4.7–6 mm., wings (4.0–)4.6–5.9 mm., keel 3.9–5.7 mm. long, blades of keel petals obliquely triangular, shortly acuminate into a sharply triangular slightly porrect apex. Pod 13–18 mm. long, 2.6–3.2 mm. in diameter, very gently and evenly curved, loosely pilosulous with ascending hairs.

Sandy fields, roadsides and waste lots, locally abundant in the lower Rio Grande Valley, from near Laredo, Texas, southeast to the Gulf Coast in northern Tamaulipas. February-March. TEXAS. WEBB Co.: Laredo, March 15, 1917, *E. J. Palmer 11289* (NY, TYPE!). JIM HOGG Co.: east of Hebbronville, *Ripley & Barneby 9034* (author's collection). ZAPATA Co.: southeast of Zapata, *Ripley & Barneby 9055* (author's collection); 13 miles north of San Ygnacia, *Shinners 17665* (SMU).—*R. C. Barneby*.

YUCCA LOUISIANENSIS Trel. var. *paniculata* (McKelvey) Shinners, comb. nov.—*Y. arkansana* var. *paniculata* McKelvey, *Yuccas of the Southwestern U.S.* Part II, p. 156. 1947. Field observation confirms the suspicion previously expressed (Field & Lab. 19: 170, 1951) that the variety belongs with *Y. louisianensis*, from which it differs only in having glabrous panicle branches. Type and other collections cited by Mrs. McKelvey (not examined) were all from Bastrop County. The following specimen is in the Herbarium of Southern Methodist University. TEXAS, Burleson Co.: 6.5 miles northwest of Caldwell, sandy roadside, *Shinners 14719*, 16 May 1953. Var. *louisianensis* is very common in northeastern Texas, forming dense stands in old fields; it occurs at least as far south as Brazos County. Both varieties are found on sandy soils east of the prairie belts, outside the range of *Y. arkansana*.—*Lloyd H. Shinners*.

QUERCUS SHUMARDII Buckley var. *microcarpa* (Torrey) Shinners, comb. nov.—*Q. coccinea* Muenchh. var.? *microcarpa* Torrey, in Emory, Rept. U.S. & Mexican Boundary 2: 206. 1859. *Q. texana* Buckley, Proc. Acad. Phila. 12: 444-445. 1860. *Q. rubra* var. *texana* Buckley, l.c. 33: 123. 1881. *Q. shumardii texana* (Buckley) Ashe, Bull. Charleston Mus. 14: 9. 1918. Since *Q. shumardii* and *Q. texana* were published simultaneously, the first author to subordinate one must be followed. Ashe's combination requires the retention of *Q. shumardii*. In varietal rank, *Q. texana* had an earlier epithet, which must be taken up.—*Lloyd H. Shinners*.

TRAGIA Smallii Shinners, sp. nov.—*T. betonicaefolia* sensu Small, Fl. S.E. U.S. pp. 701-702, 1903; Pax & K. Hoffman in Engler, Das Pflanzenreich IV. 147. ix-xi: 62, 1919; non Nuttall, Trans. Amer. Philos. Soc. 5: 173, 1837. TYPE: sandy soil along brook, cut-over longleaf-pine country, 1 mile S. of Mayo P.O., Vernon Parish, Louisiana, *Rogers McVaugh 8461*, May 25, 1947. Specimen is in the Herbarium of Southern Methodist University, with the following three paratypes. LOUISIANA, Vernon Parish: 2 miles west of Leander (3 miles from border of Rapides Parish), *G. L. Webster & R. L. Wilbur 3249*, July 7, 1950. MISSISSIPPI, Jackson Co.: Ocean Springs, *A. B. Seymour 91822* (*Seymour & Earle Mexican Gulf Coast Flora* No. 66), Aug. 22, 1891. TEXAS, Hardin Co.: about 7 miles south of Kountze, longleaf pine belt, *Eula Whitehouse 23253*, May 20, 1950. A Latin description is given at some length by Pax & K. Hoffman, op. cit. The type of Nuttall's species came from eastern Oklahoma, "on the prairies of Red river, in arid situations," said to have been found with *T. angustifolia* Nutt. [*T. nepetaefolia* Cav. var. *ramosa* (Torr.) Muell.-Arg.], "to which it is nearly related, and also to *T. urticaefolia*." Nuttall also comments on the close resemblance to the figure of *T. nepetaefolia*. Without examining the type (if one exists), it is impossible to determine exactly what Nuttall's plant was, except that it could not possibly be the Gulf Coast, sessile-leaved species to which Small misapplied the name. *T. nepetaefolia* var. *ramosa*, *T. urticaefolia* Michx. var. *urticifolia*, and *T. urticaefolia* var. *texana* Shinners all occur in the area in which Nuttall collected. His description of *T. betonicifolia* rather suggests the last-named variety, but is quite inconclusive. The relevant species names are all older than Nuttall's, so that his *T. betonicaefolia* is necessarily a synonym.—*Lloyd H. Shinners*.

EUTHAMIA PULVERULENTA GREENE (COMPOSITAE) IN SOUTHWESTERN LOUISIANA.—In Field & Lab. 19: 138, 1951, this species (also called *Solidago texensis* Friesner) was reported as a restricted endemic of the central Texas coast, in Galveston, Harris, Jackson, and San Patricio counties. It can now be reported from clay prairies in southwestern Louisiana, CALCASIEU PARISH: east side of Lake Charles, *Shinners 22109*, Oct. 9, 1955. As in most Texas specimens, the involucres are not pulverulent.—*Lloyd H. Shinners*.

CHAMAESYCE perennans Shinners, sp. nov.—Perennis pluricaulis dichotoma subrecta sub-20 cm. alta glaberrima glauca, foliis remotis ovato-deltaideis vel -ellipticis integris brevissime petiolatis basi truncato-rotundatis vel subcordatis caulinis 9–13 mm. longis, stipulis connatis in segmenta 1–3 lineari-filiformia sectis. Cyathia terminalia plura breviter pedunculata 1.8–2.3 mm. longa glandulis ovalibus expandiculis cum lobis triangulari-acuminatis fimbriato-ciliatis alternantibus. Flores mares ca. 15 exserti inter bracteas anguste lineares multas aequales. Styli liberi ad $\frac{1}{4}$ bifidi 0.7–1 mm. longi. Capsula acute trilobata 3 mm. longa. Semina subprismatica acute angulata laevia argentata venter paulum concava 2.2–2.4 mm. longa. HOLOTYPE: gravel bed of dry creek, 3 miles west of Terlingua, Brewster Co., Texas, *B. L. Turner (3203)*, *B. C. Tharp & B. H. Warnock 53-539*, Aug. 27, 1953 (in Herb. Southern Methodist University). Suggesting the prostrate annual *C. carunculata* (Waterfall) Shinners (Field & Lab. 20: 4, 1952) in its large leaves and capsules, but a nearly erect perennial with stout, tough root and very short-petioled leaves. The cyathia are not dimorphic as in *C. carunculata*, all being of the type without petal-like gland-appendages. This species raises to 34 the total number known from Texas, which already had three-fourths of those given in Wheeler's revision (L. C. Wheeler, "*Euphorbia* subgenus *Chamaesyce* in Canada and the United States exclusive of Southern Florida," Contrib. Gray Herb. 136, 1941; reprinted from *Rhodora* vol. 43).—*Lloyd H. Shinners*.

ARGYTHAMNIA MERCURIALINA (Nutt.) Muell.—Arg. var. *pilosissima* (Benth.) Shinners, comb. nov.—*Serophyton pilosissimum* Benth., Bot. Voyage H.M.S. Sulphur (Fasc. III), p. 53, 1844. *Ditaxis pilosissima* (Benth.) Heller, Cat. N. Amer. Pl., p. 5, 1898. Occurs on the central Texas coast, inland to Karnes Co., a less extreme form as far as Blanco Co.; var. *mercurialina* is widespread though not especially common to prairies of central and northern Texas.—**ARGYTHAMNIA HUMILIS** (Engelm. & Gray) Muell.—Arg. var. *laevis* (A. Gray) Shinners, comb. nov.—*Aphora laevis* Gray ex Torr. in Emory, Rept. U.S. & Mex. Boundary Survey 2: 196–197, 1859. *Ditaxis laevis* (Gray ex Torr.) Heller, l.c. Rather rare in the Trans-Pecos (specimens seen from Jeff Davis and Reeves counties); var. *humilis* is common and widespread on prairies of central and western Texas.—*Lloyd H. Shinners*

ALCHEMILLA MICROCARPA Boissier & Reuter (ROSACEAE) IN TEXAS.—This inconspicuous little South-European annual, reported in recent manuals as introduced in the eastern U.S. from Delaware to Georgia, Alabama, and Tennessee, was found in some abundance on a sandy clay roadside bordering a pine-hardwood stand 3 miles east-northeast of Milam, Sabine Co., Texas, on May 3, 1956 (*Shinners 22959*). An earlier collection in the Gulf Southwest is that of Dr. Dwight M. Moore, from Camden, Ouachita Co., Arkansas, April 10, 1939. The plant was listed (under the name of the closely related *A. arvensis*) by Dr. Delzie Demaree in his "A catalogue of the vascular plants of Arkansas," Taxodium 1: 36, 1943, credited to Buchholz & Palmer's Supplement (to the old Branner & Colville Catalogue), but those authors do not list it (cf. Trans. Acad. Sci. St. Louis 25:

117-123, 1926, treating the Rosaceae). Only a few centimeters high (taller when crowded or in shade), with tiny, apetalous flowers concealed by the leafy stipules, the species is so easily overlooked that reported collections of it can hardly give an accurate idea of its occurrence.—*Lloyd H. Shimmers.*

Yellow-flowered Oxalis (Oxalidaceae) of eastern Texas and Louisiana

Lloyd H. Shimmers

Oxalis corniculata L., a dark green, creeping plant with brownish, oblong stipules, occurs as a rather recent introduction in southern Texas (Aransas, Calhoun, Duval, Hardin, Hidalgo, Jasper, Kenedy, Kleberg, Newton, Nueces, Refugio, Wharton, and Willacy counties; earliest collection seen dated 1929, "Rockport-Bayside," Aransas Co.). Far more abundant and widespread, evidently native from Texas to Florida, is another creeping plant, light green, less prostrate, and without the distinct dark stipules of *O. corniculata*, to which it has consistently and quite erroneously been referred:

OXALIS DILLENII Jacq. var. *radicans* Shimmers, var. nov. *O. corniculatam* caulibus repentibus imitans sed estipulata vel subestipulata; *O. Dillenii* omnino nisi habitu stolonifero accedens. TYPE: 4.8 miles south-southeast of Streetman, Freestone Co., Texas, *Shimmers 23872*, 28 April 1956 (SMU). "Road shoulder, sandy clay. Stoloniferous, forming loose mats. Petals yellow with inconspicuous red-orange basal marking (12 M., partly cloudy)."

Though often quite weedy, all the *Oxalis* of eastern Texas (north of Jasper and Newton counties) and Louisiana are, in my opinion, undoubtedly native. They may be distinguished as follows:

- 1a. Petals 4—12 mm. long, 1.3—2.5 times as long as the sepals; styles elongating very little, 0.3—1.5 mm. long when young capsule emerges from calyx, usually united or appressed together; inflorescence shorter to slightly longer than leafy portion of stems (or erect branches); widespread
- 2a. Stem glabrous to sparsely appressed- or spreading-pubescent; stipules absent, petiole-base barely widened; inflorescence often compound; petals 4—8 mm. long, 1.3—2 times as long as the sepals, light yellow; flowering summer—fall.....*O. stricta* L.
- 2b. Stem moderately to densely appressed- or ascending-pubescent; petiole-base more or less flaring or wing-margined, appearing narrowly stipulate; inflorescence usually simple; 6—12 mm. long, 1.8—2.5 times as long as the sepals, deep yellow, often marked red at base; flowering spring—summer—fall.....*O. Dillenii* Jacq.