

hydrochloric and nitric acids gave an average value of $0.015 \pm 0.001\%$. The correct value is 0.014% .

The photometric method for copper may be applied to lead and lead-base alloys if the copper content is from 0.001 to 0.005% or from 0.01 to 0.05%. The method is accurate to better than 0.005% copper in the range 0.01 to 0.05% and better than 0.0005% in the range 0.001 to 0.005%.

The visual method is very rapid and is accurate to $\pm 0.01\%$ copper in a 0.50 sample.

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New Names for Texas Leguminosae

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Mimosa warnockii nom. nov.—*Mimosa flexuosa* Benth. ex Gray, Pl. Wright. 1:62. 1852. Not *M. flexuosa* Poir., Encyc. Supp. 1:79. 1810. A small shrub 1—(3) feet tall, forming neat, dome-shaped clumps on the rolling, igneous foothills and flats of the Davis Mountains, north of Marfa, Texas. The species is related to *M. biuncifera* and is sometimes included as a variety of that species. In the field and on herbarium sheets the taxa are clearly distinct and so far as known do not intergrade. *M. warnockii* is named for Dr. Barton H. Warnock of Sul Ross State College, Alpine, Texas, who first showed me the extensive populations of the plant in the field and pointed out the salient characters which separate it from *M. biuncifera*.

Mimosa pigra L. var. *berlandieri* (Gray) comb. nov.— *Sophora sericea* Nutt., Gen. Am. 1:280. 1818. Not *S. sericea* Andrews, Bot. Rep. t. 440. 1806¹. The first published description for any portion of *S. nuttalliana* was apparently made

see p. 42
for omitted
lines.

¹I am grateful to Rupert Barneby, Dr. Reed C. Rollins and Dr. Lloyd Shinnors for offering critical advice concerning the nomenclature of this species.

by Pursh (1814), who, according to Nuttall (1818), described a mixture of *Sophora nuttalliana* and *Astragalus crassicaarpus* Nutt. as *Astragalus carnosus* Pursh. Nuttall, in the same publication (1818), adopted the *Astragalus* element to typify *A. carnosus* Pursh. em. Nutt.; however, this *Astragalus* element is apparently a synonym of the earlier *A. crassicaarpus* of Fraser's Catalogue (1813)². Since Nuttall states that *A. carnosus* is based on a mixture, it appears to be a good candidate for permanent rejection under Article 76 of the International Code of Botanical Nomenclature (1952) ("A name of a taxon must be rejected if its characters were derived from two or more entirely discordant elements, unless it is possible to select one of these elements as a satisfactory type.") Nuttall, in taking up the name *carnosus* for the *Astragalus* element, makes it somewhat indefensible to apply the specific name *carnosus* to the *Sophora* element. According to Barneby (personal communication), "The original description of Pursh seems to be about equally divided between *Sophora* and *Astragalus*, and anyone would be entitled to claim that one predominated, opening up endless vistas of wrangling. Why not just discard *A. carnosus* (as every taxonomist of experience has done for a hundred years or more)?"

Dalea frutescens Gray var. *laxa* (Rydb.) comb. nov.—*Parosela laxa* Rydb., N. Amer. Fl. 24:85. 1920. This variety is distinguished from *D. f.* var. *frutescens* by its longer, less crowded inflorescence; otherwise they are alike. Var. *laxa* is found primarily in south-central Texas while var. *frutescens* is widespread from Central Texas to New Mexico and adjacent northern Mexico. Intergrades occur.

Dalea pogonathera Gray var. *walkerae* (Tharp & Barkley) comb. nov.—*Parosela walkerae* Tharp & Barkley, Bull. Torr. Bot. Club 73:133. 1946. *D. p.* var. *walkerae* has pale purple or flesh colored petals and a narrow, lax spike; var. *pogonathera* has deep purple petals and a thick congested spike. The latter variety is characteristic of central and trans-Pecos Texas; the former variety is characteristic of southern Texas. Gradual intergradation of these characters occur from the Laredo area to Del Rio. Numerous interme-

²Reference should be made to Shinnery's (Rhodora 57:290-293, 1955) article concerning the acceptance of Fraser's catalogue names and his account of the synonymy affecting *A. crassicaarpus*.

diate populations may be found in the field where this geographical overlap occurs.

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Physostegia serotina (Labiatae), a New Species from Coastal Louisiana and Texas

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PHYSOSTEGIA serotina Shinnery, sp. nov. Perennis arrhizomatosa caule glabro 35-125 cm. alto, foliis inferioribus breviter petiolatis (petiolis 0.3-1.5 cm. longis) laminis lanceolatis 3-7 cm. longis 0.5-1.3 cm. latis acutis acute serratis, superioribus gradatim multo minoribus lineari-lanceolatis sessilibus. Inflorescentia simplex vel virgato-ramosa, cum bracteis calycibusque densissime minute pubescens eglandulosa vel parce capitato-glandulosa. Calyces 7-9 (denique 10) mm. longi, dentibus anguste deltoideo-lanceolatis 2.0-3.3 cm. longis inclusis. Corollae spectabiles roseo-violeae maculatae 2.5-3.2 cm. longae (tubo 0.7-1.4 cm. longo e calyce denique valde exserto). Nuculi glabri, maturi desunt. LOUISIANA, CALCASIEU PARISH: clay ditch bank, east side of Lake Charles, *Shinnery 22108*, 9 October 1955 (TYPE). Additional specimens, both of injured plants with abnormal branching, seen from TEXAS, HARRIS Co.: 6½ miles southwest of Genoa, *V. L. Cory 50716*, November 11, 1945. JEFFERSON Co.: 9 miles west of Beaumont, *Cory 50021*, November 11, 1945. (Cited specimens all in Herb. Southern Methodist University.)

Closely related to *P. praemorsa* Shinnery (1951, pp. 166-167), a species still known only from the type collection, made over 250 airline miles north of the nearest locality known for the present species. *P. serotina* is a larger plant with larger, much deeper-colored corollas which have a more pronounced basal tube, the limb flaring well above the calyx when fully expanded. In *P. praemorsa* the pale corollas have a very short basal tube, expanded into the limb about at the summit of the calyx.

From 1943 until the present, no less than five species of *Physostegia* occurring in the Gulf Southwest (Arkansas, Louisiana, Oklahoma, Texas east of the Pecos River) have been described as new. In addition, three long-known species