

NOTES ON VASCULAR PLANT TYPE COLLECTIONS OF CYRUS G. PRINGLE IN WESTERN UNITED STATES AND MEXICO, 1881–1884

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ABSTRACT

Botanist Cyrus G. Pringle collected plants in the western United States and northwestern Mexico between 1881 and 1884, and distributed his specimens as 'Flora of the Pacific Slope'. The majority of the vascular plant type collections resulting from that work have been discussed elsewhere. This note addresses type status for five additional names that were previously overlooked in Pringle's catalogue for Arizona and California.

RESUMEN

El botánico Cyrus G. Pringle recogió plantas en los estados del oeste de Estados Unidos y México entre 1881 y 1884, luego distribuyó sus especímenes como 'Flora of the Pacific Slope'. La mayoría de esas colecciones eran tipos nomenclaturales de plantas vasculares que se han discutido en otra parte. Esta nota indica el estado de tipificación de cinco nombres adicionales que se omitieron anteriormente en el catálogo de Pringle para Arizona y California.

Vermont botanist Cyrus G. Pringle collected specimens of more than 1900 vascular plant species and infraspecific taxa in the western United States and northwestern Mexico between 1881 and 1884. Of those, 235 plant names have been published that were based at least in part upon plants he collected. The majority of these type collections were documented and clarified by Mauz (2011) in anticipation of a book documenting Pringle's travels and exsiccatae made during these years (Mauz, in press). Five names have since been discovered to have also referred to Pringle's specimens in the protologues. Each entry that follows includes the protologue as pertains the type collections, steps toward effective lectotypification, and discussion regarding the interpretation of material in herbaria. Although the lectotypes for these names are referenced in discussion as they appear in the literature, only the data for Pringle's specimens are presented in full with notes at the conclusion of each entry.

ISOETACEAE

Isoetes lacustris L. var. *paupercula* Engelm., Trans. Acad. Sci. St. Louis 4:377. 1882, "The variety in Grand Lake, Middle Park, Colorado, over 8,000 ft. alt., Engelmann, and in Castle Lake near Mt. Shasta, California, 7,000 ft. alt., C.G. Pringle." = *Isoetes occidentalis* L.F. Hend.

Lectotypification.—Piper (1906:89) cited the type locality, "Grand Lake, Middle Park, Colorado," but did not refer to a collector or to the location of a specimen. Engelmann's own collection with these data was annotated for and cited in a monograph of the genus by Pfeiffer (1922:190), but was not referred to as 'type' or an equivalent term (McNeill et al. 2012:Art. 7.10). No evidence has been found for effective lectotypification.

Notes.—The discrepancy between the elevation cited in the protologue and that appearing on Pringle's specimens remains unexplained; the true elevation of Castle Lake is about 6000 ft, and Pringle made no other collections of this plant. TYPE: U.S.A. California. Siskiyou Co.: Mountains about the headwaters of the Sacramento River, scattered on the gravelly bottom in 2–6 feet of water, alt. 6000 ft, 14 Aug 1881, C.G. Pringle s.n. (syntype: MO-1852186!). Castle Lake, mountains about the head waters of the Sacramento River, alt. 6000 ft, 14 Aug 1881, C.G. Pringle s.n. (isosyntypes: GH [image!], VT!).

ARISTOLOCHIACEAE

Aristolochia watsonii Wooton & Standl. [*A. brevipes* var. *acuminata* S. Watson, non *A. acuminata* Lam.], Contr. U.S. Natl. Herb. 16:117. 1913. *Aristolochia brevipes* Benth. var. *acuminata* S. Watson, Proc. Amer. Acad. Arts

18:148. 1883, "It was collected by Wright (1701) in New Mexico, by Thurber (1025) in Sonora, by Lemmon (272) in the Santa Catalina Mountains, Arizona, and by Pringle near Camp Lowell; it is also in Schaffner's previous collection (47), from the mountains near San Luis Potosi. 766 Parry & Palmer in its foliage connects with the typical form."

Lectotypification.—Step 1. Pfeifer (1970:53) initially designated a type for *Aristolochia brevipes* Benth. var. *acuminata* S. Watson that was not cited by Watson: "Type: *Palmer, Edward 1183*, GH!, NA!, US!" The same author later designated a different lectotype from among original material: Pfeifer, *Brittonia* 28:352. 1976, "I here designate *Wright 1701* as the type of *A. watsoni*. . . . Lectotype: *Wright 1701*, GH, MO, NY(2), UC, US." Step 2. Pfeifer (1976) did not distinguish which institution held the lectotype and which held isotypes; this final step, including the selection of a single sheet, remains necessary for effective lectotypification (McNeill et al. 2012:Art. 9.17).

Notes.—Pfeifer (1970) cited Pringle's collection from Cochise County, but the collection locality at Camp Lowell is actually in Pima County, near Tucson (see Mauz 2007). TYPE: U.S.A. Arizona. Pima Co.: Near Camp Lowell, Apr 1881, *C.G. Pringle s.n.* (syntype: GH-375511 [image!]; isosyntypes: VT!; also F, NA, US, cited by Pfeifer 1970:97).

MALVACEAE

Abutilon reventum S. Watson, *Proc. Amer. Acad. Arts* 21:418. 1886, "Hacienda San Jose ([*Palmer*] 56); first collected by Thurber near Ures in Sonora (*A. sonorae*, var., Gray in *Pl. Thurb.* 308), and recently by Pringle (n. 27, of 1882) in the Santa Catalina Mountains of Arizona, distributed under the same name."

Lectotypification.—Step 1. Rose, *Contr. U.S. Natl. Herb.* 5:171. 1899, "This species, based upon Dr. Palmer's South Chihuahuan species [sic; specimens?], has since been found only along our southern border." Step 2. Fryxell, *Madroño* 23:329. 1976, "Type: Chihuahua, Hacienda San José, 25 mi S of Batopilas, Aug 1885, *Palmer 56*. Holotype: GH!; isotype: US!"

Among specimens examined, Fryxell (1976) also cited a duplicate of *Palmer 56* at MICH. The same author also later referred to this collection as 'type' (Fryxell 1993:19) and as 'lectotype' (Fryxell 2001:172). In a still later treatment of the genus, the lectotype was indicated as having been designated in 2001 (Fryxell 2002:105), but inadvertent lectotypification had already been accomplished in 1976 (McNeill et al. 2012:Art. 9.9).

Notes.—Of Pringle's specimens, only the one at GH bears the number '27'; rather than Pringle's collection number, this was a number in a list referred to in correspondence (see Mauz 2011:74). TYPE: U.S.A. Arizona. Pima Co.: Santa Catalina Mts, 7 Jun 1882, *C.G. Pringle s.n.* [27] (syntype: GH-872203!; isosyntypes: MO!, VT!).

POLYGONACEAE

Chorizanthe clevelandii Parry, *Proc. Davenport Acad. Nat. Sci.* 4:62. 1884 [1886], "Allen Springs, Lake county, June, 1882, *D. Cleveland*. Ukiah, Mendocino county, August 14th, 1882, *C.G. Pringle*. *Mrs. K. Curran*, Grisley Cañon, Lake county, 1883. A very distinct species, which I take pleasure in dedicating to its first discoverer, *D. Cleveland, Esq.*, of San Diego."

Lectotypification.—Goodman, *Ann. Missouri Bot. Gard.* 21:76. 1934, "Type: Allen Springs, Lake Co., California, June, 1882, *Cleveland* (Par [=ISC])."

Notes.—Pringle's specimen in the herbarium of the taxonomic authority bears Pringle's field ticket and a label hand-written by Parry; the collection has not been found duplicated among Pringle's general distribution. TYPE: U.S.A. California. Mendocino Co.: Washes of the Russian River, Ukiah, 14 Aug 1882, *C.G. Pringle s.n.* (syntype: ISC-296888 [image!]; isosyntypes: unknown).

POACEAE

Triodia grandiflora Vasey in Coulter, *Contr. U.S. Natl. Herb.* 1:59. 1890, "Chenete Mountains (Presidio County); collected also in Arizona and Chihuahua by Pringle." = *Erioneuron avenaceum* (Kunth) Tateoka

Lectotypification.—McVaugh, *Fl. Novo-Galiciana* 14:179. 1983: "w. Tex. . . . *Nealley 823*, US!, type of *T. grandiflora*."

The Nealley collection (US-81812!) has since been referred to as isotype (e.g., Valdés-Reyna & Hatch 1997:660; Peterson et al. 2001:229), but its status should be regarded as lectotype (McNeill et al. 2012:Art. 9.9). The number '823' indicates the order of appearance in the publication by Coulter (1890), rather than Nealley's collection number; the number has, nonetheless, been written on the label for Nealley's specimen at US and may or may not appear on duplicates elsewhere.

Coulter's (1890) publication dealt with collections made by Greenleaf C. Nealley in Texas from 1887 to 1889. While that treatment addressed collections made over three years for the Smithsonian's Department of Botany, Vasey (in Coulter 1890:52) asserted that collections for which a locality was specified, at least within a county, are those from 1889. Nealley's field notebooks from these years were not found at US in August 2012 to provide additional clarification for the undated lectotype at US.

Notes.—Several duplicates of Pringle's Chihuahuan collection, distributed as his *Plantae Mexicanae* no. 406, are present at US as isosyntypes. Neither of Pringle's collections from Arizona was found duplicated at US in August 2012, and what specimen was seen by Vasey remains unknown. TYPE: U.S.A. Arizona. Cochise Co./Santa Cruz Co.: Limestone ledges, Mustang Mts, 13 Sep 1884, C.G. Pringle s.n. (syntype: ?; isosyntypes: GH!, VT!). Pima Co.: Limestone ledges, Santa Rita Mts, 21 May 1884, C.G. Pringle s.n. (syntype: ?; isosyntype: VT!).

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