

REFERENCE MATERIAL

Updates [24 July 2020]

CAMPANULACEAE:

■Morin, N.R. 2020. Taxonomic changes in North American Campanuloideae (Campanulaceae). *Phytoneuron* 2020-49: 1-46.

Campanula uniflora Linnaeus = *Melanocalyx uniflora* (Linnaeus) Morin

PHRYMACEAE:

Erythranthe

■Nesom, G. 2020. *Erythranthe plotocalyx*, (Phrymaceae), and new species from Arizona and New Mexico. *Phytoneuron* 2020-40: 1-9.

1 Plants erect to ascending-erect; cauline leaves basally attenuate to sessile or subsessile, epetiolate, blades oblanceolate to elliptic or elliptic-lanceolate, primarily palmately 3-5-nerved, sometimes with an additional 1-2 smaller lateral pairs; fruiting pedicels 20-45 mm; corolla tube-throats 5-6 mm; fruiting calyces 5-8 mm long *E. plotocalyx*

1 Plants laxly erect to decumbent, sprawling, or procumbent; cauline leaves abruptly and distinctly petiolate, blades generally ovate with a rounded to truncate or cordate base; mostly pinnately to subpalmately veined; fruiting pedicels 5-15(-26) mm; corolla tube-throats (4-)5-10 mm, fruiting calyces 4-7 mm long *E. floribunda*

Erythranthe plotocalyx Nesom [swimming or buoyant calyx] ["Arizona/New Mexico variant" in FNM III (2020)]. Annual herbs, fibrous-rooted, the herbage villous-glandular with gland-tipped hairs, the stems erect to ascending-erect, (3)6-30 cm tall/long; leaves mostly cauline by flowering, oblanceolate to elliptic or elliptic-lanceolate, 1-3 cm long, primarily palmately 3-5-palmately nerved, the margins entire to shallowly serrate or dentate with 1-3 pairs of teeth; fruiting pedicels 20-45 mm long; fruiting calyces distinctly inflated, 5-8 mm long, greenish or purplish, not red-dotted, villous-glandular, the lobes subequal; corollas yellow with the floor of the tube red-dotted, exerted 2-4 mm beyond the calyx, the tube/throat 5-6 mm long, weakly bilabiate or essentially radial; anthers glabrous; capsules 4-7 mm long. ●Cienegas, wet meadows, drainages, wet soil of marshes, ponds, and creek edges; as yet known only from Hidalgo County. ◆In FNM III (2020) this was referred to as the "Arizona/New Mexico variant" of *Erythranthe floribunda*.

RANUNCULACEAE:

Caltha

■Wefferling, K.M. & S.B. Hoot. 2017. Species circumscription of the *Caltha leptosepala* polyploid complex (Ranunculaceae) based on molecular and morphological data [*Caltha chionophylla*]. *Phytotaxa* 316(3): 201-223.

1 Filaments broader and generally shorter than the carpels; Santa Fe Ski Basin..... *C. chionophylla*

1 Filaments no broader than the anthers (broadly filiform to about as wide as the anthers) and generally long than the carpels; widespread in northern mountains..... *C. leptosepala*

Caltha chionophila Greene [snow-loving]. Stems erect, with 0-1 cauline leaves; basal leaves ovate, broadly oblong, to obovate, 1.2-3 times longer than wide, the margins mostly sinuate-dentate to subentire; inflorescences 1-3-flowered; flowers 3-4.5 cm diam; sepals white to yellow, bluish abaxially and in bud, 1-2 cm long; filaments strongly flattened, 0.5-1.2 mm wide, wider and generally shorter than the anthers; follicles 1-2 cm long, the beak 0.5-1.2 mm; 2n=6x. ●Subalpine to alpine seeps and boggy ground; Santa Fe Ski Basin.

Caltha leptosepala A.P. de Candolle [with slender sepals] [*Caltha leptosepala* A.P. de Candolle var. *rotundifolia* Huth, *Caltha rotundifolia* (Huth) Greene, *Psychropila leptosepala* (A.P. de Candolle) W.A. Weber]. Stems erect, with 0-1 cauline leaves; basal leaf blades ovate to broadly reniform or orbiculate, 2-15 cm long, 1-1.7 times longer than wide, the margins entire, crenate, or dentate; inflorescences 1-4-flowered; flowers 15-40 cm diam; sepals white to yellow, bluish abaxially and in bud, 1-2 cm long; filaments broadly filiform to flattened, 0.2-0.9 mm wide, slightly narrower to as wide as the anthers and longer than the carpels; follicles 1-2 cm long, the beak about 0.1 mm long; 2n=9x, 12x. ●Wet seeps and boggy ground in the high northern mountains. §

Updates [17 August 2020]

1. for *Phemeranthus brevifolius*: "Plants to 60 mm tall..."
2. for *Frasera speciosa*: "Plants long-lived perennials, ..."

Updates [1 October 2020]

FABACEAE:

Dalea occidentalis (Britton & Kearney) Isely 1998 is a later homonym of *Dalea occidentalis* (Rydberg) L. Riley 1923, so our plants = *Dalea oligophylla* (Torrey) Shinnors

MONTIACEAE:

Phemeranthus

■Ferguson, D.J. 2020. New combinations in Montiaceae and Talinaceae, with descriptions of two previously unnamed species. *Cactus & Succulent Journal* 92(3): 236-247.

8 Plants rhizomatous (the caudex also often branching); leaves often minutely pointed..... *P. rhizomatus*

8 Plants lacking rhizomes (but the caudex often branching); leaves usually blunt, not pointed *P. brevifolius*

Phemeranthus rhizomatus D.J. Ferguson [rhizomatous]. Plants to 10 cm tall/long, generally much less, from a branching caudex, the roots thickened, the stems ascending to prostrate; leaves sessile, the blades compressed somewhat but not flattened, to 15 mm long,

sometimes minutely pointed; inflorescence little exceeding the leaves 1- to rarely few-flowered; sepaloids deciduous, to 5 mm long; petaloids reddish purple, 5-12 mm long; stamens about 25-35 in number; stigmas 3 in number; capsules 3-4 mm long. ●Apparently found only on Gila Conglomerate; known from Catron and Grant counties. ♦Recently described (Ferguson 2020) from material previously called *Phemeranthus brevifolius*, with which it can be confused if the subterranean portions of the plant are not carefully excavated. In both species, the caudex may branch, and be mistaken for the rhizomatous growth of *P. rhizomatus*.

Talinum

Talinum sp. 1 = *Talinum sonorae* D.J. Ferguson

Updates [22 January 2021]

ASTERACEAE:

Heterotheca

■Nesom, G.L. 2020. Taxonomic summary of *Heterotheca* (Asteraceae: Astereae): Sect. Chrysanth. Phytoneuron 2020-68: 1- 359 [in 5 parts: 1-74; 75-134; 135-216; 217-319; 320-359].

Note: These papers present a taxonomy different than that presented in Flora Neomexicana III, pt. 2 (2020), and with which we are not entirely in agreement.

Volutaria

Volutaria muricata (Linnaeus) Maire known as a garden escape in Doña Ana County.

CACTACEAE:

Corrected distribution for *Cylindropuntia whipplei*: Catron, Cibola, Grant, McKinley, Rio Arriba, Sandoval, and San Juan counties.

LOASACEAE:

■Schenk, J.J. & L. Hufford. 2020. A phylogenetic monograph of *Mentzelia* Section *Bartonia* (Loasaceae). Syst. Bot. Monogr. 110: 1-230.

MALVACEAE:

Gossypium

■Alexander, P.A. 2020. iNaturalist observation of *Gossypium thurberi* in New Mexico, <https://www.inaturalist.org/observations/66906857>, accessed 21 Dec 2020.

1 Leaf blades shallowly lobed, lobes broadly ovate; petals 2-5 cm long; capsules 2-4 cm long; seeds comose (cottony)..... *G. hirsutum*

1 Leaf blades deeply lobed, the lobes narrowly lanceolate; petals 1.5-2.5 cm long; capsules 1-1.5 cm long; seeds glabrous or glabrate....

.....*G. thurberi*

Gossypium thurberi Todaro [for George Thurber (1821-1890), American botanist and naturalist]. Perennial shrub to 2 m tall, the stems glabrous; stipules 5-10 mm long, ½ to ¾ as long as the blades; blades ovate to orbicular in outline, deeply 3-5-lobed, 5-15 cm long, the base subcordate; calyces 3 mm long; petals cream-colored, generally with a red spot, 1.5-2.5 cm long; stigmas 3-5; capsules 1-1.5 cm long, glabrous; seeds 3-4 mm long, glabrous or glabrate. ●Rocky desert canyons, arroyos; only recently found in the Peloncillo Mts, Hidalgo County; also Arizona, Chihuahua, Sonora.

PLANTAGINACEAE:

Plantago wrightiana also in Lea County.