

A Newsletter for the flora of New Mexico, from the Range Science Herbarium and Cooperative Extension Service, College of Agricultural, Consumer, and Environmental Sciences, New Mexico State University.

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Identification of *Mentzelia* Species in New Mexico

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The vernacular names of ‘stickleaf’ and ‘blazingstar’ are appropriate for the genus *Mentzelia* (Loasaceae). The glaucous leaf and stem hairs readily adhere to clothing and the radiating bright white or yellow petals and stamens of most of our species do not open until the late afternoon and evening hours. A child can press a corsage of flowering stickleaf twigs to his or her mother’s blouse and a student of blazingstars must remain late in the field during long summer evenings after everyone else has gone home to dinner.

Three sections of the genus *Mentzelia* occur in New Mexico. Section *Trachyphytum* is represented by three short-lived, spring or early summer annuals with short (<6 mm) yellow petals. Section *Mentzelia* in New Mexico is also represented by three species, which have orangish flowers that are open during the day. All the remainder, most of our species, are vespertine-flowering, have winged seeds, and belong to the section *Bartonia*. Section *Bartonia* appears to be rapidly diversifying and its species are often not yet well sorted or easily distinguished. They are all highly variable and many exhibit overlapping or intermediate characteristics, which leads to difficulties in taxonomy and identification.

The New Mexican blazingstars are still being taxonomically revised by experts and I am reluctant to make a premature accounting of them. However, Kelly Allred asked me to construct a key to the New Mexican *Mentzelia* taxa, so the following is the taxonomic situation as I currently understand it.

Mentzelia in New Mexico

(+ = endemic to NM)

- 1 Seeds lenticular, narrowly winged; open petals white, cream-colored, or yellow and >6 mm long (outer petal surface of closed flower bud often tinged orange)
- 2 Tap rooted biennials or short-lived perennials (*nuda* and *strictissima*) without obvious woody bases; often tall or bushy plants with one or few stems from a rosette of leaves that wither when the plant matures
- 3 Open petals golden, lemon yellow or sulfur yellow
 - 4 Leaves pinnately lobed to near the midribs (pinnatisect) with slender, linear to linear-oblong lobes that are often more than four times longer than broad
 - 5 Petals <2.5 cm long...*M. laciniata* (Rydberg) J. Darlington CUTLEAF BLAZINGSTAR. Sandy clay soil in northwestern counties, mostly west of the continental divide.
 - 5 Petals 2.5-4 cm long...+*M. conspicua* T.K. Todsén CHAMA BLAZINGSTAR. Endemic to sandy clay soil in the Chama River basin of Rio Arriba County.
 - 4 Leaves sinuate, dentate, lacinate or pinnatifid but not with long linear lobes
 - 6 Stem strict, usually >80 cm or more tall with flowering branches mostly above the middle... *M. rusbyi* Wootton RUSBY’S BLAZINGSTAR. Piñon-juniper woodland and ponderosa forest in the mountains of the central and western regions.
 - 6 Stem(s) branching (often broadly) above and below the middle, rarely >70 cm tall
 - 7 Petals pubescent on outer surface...*M. marginata* (Osterhout) H.J. Thompson &

(Continued on page 2, *Mentzelia*)

Botanice est Scientia Naturalis quae Vegetabilium cognitorem tradit.

— Linnaeus



(*Mentzelia*, continued from page 1)

- Prigge var. *cronquistii* (H.J. Thompson & Prigge) N.H. Holmgren & P.K. Holmgren CRONQUIST'S BLAZINGSTAR. Desert scrub, San Juan County.
- 7 Petals glabrous on outer surface
- 8 Filaments of fertile stamens in outer whorls broadly expanded, sometimes petaloid...*M. multiflora* (Nuttall) Gray ADONIS BLAZINGSTAR. Distributed state-wide with a bewildering array of variations in stature, leaf shape, flower size and shade, and capsule shape and size.
- 8 Filaments of all fertile stamens narrow, outer whorl filaments only slightly wider than those in inner whorls...*M. reverchonii* (Urban & Gilg) Thompson & Zavortink RERVERCHON'S BLAZINGSTAR. Northeastern counties near Texas border.
- 3 Open petals white or cream-colored
- 9 Petals 5-8 cm long, upper floral bract lacinate, growing from capsule wall...*M. decapetala* (Pursh ex Sims) Urban & Gilg ex Gilg GUMBO LILY. Shaley soil on eastern plains.
- 9 Petals <4 cm long; upper floral bract lacinate or entire, subtending the capsule
- 10 Petals 25-40 mm long; styles 12-25 mm long...*M. nuda* (Pursh) Torrey & Gray GOODMOTHER. Northeastern plains and canyons.
- 10 Petals <25 mm long; style 7-12 mm long
- 11 Stems branching (often broadly) above and below the middle, usually <70 cm tall...*M. multiflora* (see lead 7, above).
- 11 Stems strict, usually 70-150 cm or more tall with flowering branches mostly above the middle
- 12 Biennial or more often short-lived perennial with 2 or more stems from the base...*M. strictissima* (Wooton & Standley) J. Darlington GRASSLAND BLAZINGSTAR. Sandy soils on southeastern plains.
- 12 Biennial, usually with a single stem...*M. rusbyi* Wooton (see lead 6 above).
- 2 Perennials with woody caudex branches clothed in persistent leaf bases or a woody multistemmed crown; sometimes with persistent basal leaves
- 13 Petals usually 3 mm or more wide, yellow or cream colored
- 14 Plants bushy with several slender (< 3 mm thick), wiry stems; petals and stamens bright lemon yellow; capsules narrow, more than two times longer than wide...*M. springeri* (Standley) Tidestrom SPRINGER'S BLAZINGSTAR. Endemic to volcanic pumice in piñon-juniper woodland or ponderosa forest in the Jemez Mountains.
- 14 Plants tufted or bushy, but with thicker, stiff stems; petals and stamens sulfur yellow, sometimes fading to cream colored after opening; capsules cup-shaped or broadly cylindrical, usually less than two times longer than wide
- 15 Basal leaves usually persistent; stems usually one or a few, less than 30 cm tall...*M. perennis* Wooton WOOTON'S BLAZINGSTAR. Endemic to sandy gypsum or caliche soils in the central and south-central regions.
- 15 Basal leaves withering, not persistent; stems usually several, 30-70 cm long...*M. todiltoensis* N.D. Atwood & S.L. Welsh TODILTO STICKLEAF. Endemic to outcrops of Todilto Gypsum in the central region.
- 13 Petals 1.2-2.5 mm wide, white
- 16 Leaves pinnatisect with widely spaced, narrow, linear lobes...*M. humilis* (Gray) J. Darlington var. *humilis* GYPSUM BLAZINGSTAR. Gypsum or caliche soils in the southeastern region.
- 16 Leaves dentate or pinnatisect with broad lobes that are widest at the base...*M. humilis* var. *guadalupensis* Spellenberg GUADALUPE STICKLEAF. Endemic to outcrops of gypsum on the west slope of the Guadalupe Mountains in Otero County.
- 1 Seeds not lenticular or winged; open petals orange, orange-yellow, or if yellow then <6 mm long
- 17 Annuals; petals yellow, sometimes with darker red-orange at the base; placentae filiform; leaf blades not hastately lobed
- 18 Inflorescence bracts 2- to 6-toothed, with distinct whitish bases; leaves narrowly lanceolate to nearly linear, entire or with a few shallow lobes...*M. montana* (Davidson) Davidson VARIEGATED-BRACK BLAZINGSTAR. Foothills and canyons of southwestern and south-central mountains.
- 18 Inflorescence bracts entire or 2-toothed, entirely green or with a small whitish patch at the base; leaf blades pinnatifid or entire
- 19 Leaves often pinnatifid, sometimes with several entire, narrowly lanceolate leaves; basal leaf rosette usually conspicuous...*M. albicaulis* Douglas ex Hooker WHITESTEM BLAZINGSTAR. Sandy plains and foothills of western half.
- 19 Leaves mostly ovate-lanceolate, entire or shallowly toothed; plants without a distinct basal rosette at maturity...*M. thompsonii* Glad THOMPSON'S STICKLEAF. Mancos and Fruitland shales, San Juan County.
- 17 Perennial or annual; petals orange or orange-yellow; placentae broad; most leaf blades hastately lobed
- 20 Herbaceous annual with slender tap root...*M. asperula* Wooton & Standley ORGAN MOUNTAIN BLAZINGSTAR. Rocky slopes of southern mountains.
- 20 Herbaceous perennial with a semi-woody crown and thick roots
- 21 Petals usually <10 mm long; capsules clavate, most reflexed, with 1-4 seeds...*M. oligosperma* Nuttall ex Simms CHICKEN-THIEF. Southern and eastern plains or rocky slopes.
- 21 Petals usually 12-15 mm long; capsules cylindrical, erect, with about 10 seeds...*M. lindheimeri* Urban & Gilg LINDHEIMER'S BLAZINGSTAR. Rocky slopes of southwestern mountains.

(Continued on page 3, *Mentzelia*)



(*Mentzelia*, continued from page 2)

The New Mexican species of *Mentzelia* have recently been listed by Allred (2008). I am deviating somewhat from that list and should explain. The Intermountain Flora treatment of *Mentzelia* (Holmgren et al. 2005) has finally circumscribed *Mentzelia pumila* Nuttall ex Torrey & Gray var. *pumila* in enough detail to determine that it does not occur in New Mexico. New Mexican specimens identified as *pumila* are more consistent with *M. multiflora* in that the seeds of our plants have the broad wings of *multiflora* instead of the narrow wings of *pumila*. Christy (1998) also eliminated the use of *pumila* in Arizona in favor of *multiflora*.

The type of *Nuttallia procera* Wooton & Standley (syn = *Mentzelia pumila* var. *procera* (Wooton & Standley) J. Darlington) has the relatively narrow, somewhat acute petals of *pumila*, but it is a slender, small-flowered plant with very pale gray seeds that are broadly winged. The *procera* population in the Tularosa Basin plants seems discordant as a synonym of *M. multiflora* because of its somewhat smaller flowers and less deeply pinnatifid leaves, however, these differences are too indistinct to provide key characteristics to separate *procera* from *multiflora*. For now, I must leave them together as *multiflora*. John Schenk will better resolve the distributions and distinctions of these taxa in his PhD dissertation on the phylogeny of section *Bartonia* (in prep., University of Washington).

The Holmgrens (2004) also confined *Mentzelia integra* (M.E. Jones) Tidestrom (syn = *Mentzelia pumila* var. *integra* (M.E. Jones) Kearny) to southern Utah and northwestern Arizona. The New Mexico record of *integra* is based on misapplication of the name by Martin and Hutchins (1981) to *M. springeri* and occasional *multiflora* (or *procera*) specimens with less deeply-lobed leaves. There are a few *multiflora* populations in our northwestern and central counties with short, cup-shaped capsules somewhat similar to *integra*, but they lack the distinctive sparse pubescence of that species. These populations may have been the source of Darlington's (1934) inaccurate contention (without specimen citation) that *integra* occurs in northwestern New Mexico.

Wooton and Standley (1915) included *Mentzelia speciosa* Osterhout in the New Mexico flora and cited a Colfax County specimen collected by Wooton. This species is reported from southern Colorado (Harrington 1954, Weber and Wittmann 1996b) so could plausibly occur in adjacent New Mexico, but no authors since 1915 have extended its range to this state. I am unable to locate Wooton's specimen, but suspect it is the anonymous NMC specimen taken from Raton in 1900 and subsequently annotated by Henry Thompson as *M. multiflora*. *Mentzelia speciosa* has been ambiguously treated in various synonymies with the biennial *M. multiflora* (Darlington 1934, Harrington 1954) and the perennial *Mentzelia densa* (Greene) Greene (Weber and Wittmann 1996b) so the taxonomic circumscription of *speciosa* is currently confusing and poorly defined.

The scanty evidence thus far that it may occur in New Mexico is unconvincing and I have not followed the Wooton and Standley (1915) example of including *speciosa* in the state flora.

Finally, *M. lindheimeri* and *M. montana* are extended to southern New Mexico by Christy (1998), but without specimen citations. I cannot find specimens of either one at the UNM herbarium. *Mentzelia lindheimeri* would probably have been seen or collected in New Mexico on rocky slopes and canyons in Hidalgo County. Henry Thompson, a *Mentzelia* expert, has annotated three NMC specimens as *M. montana*. These are: *Wooton s.n.* (Organ Mountains, Doña Ana County); *Wooton s.n.* (near Rio Apache, Catron County); and *Metcalfe 51* (Gila River near Cliff, Grant County) (NMBCC 2009). UNM Herbarium contains numerous specimens that I cannot confidently place into either *M. montana* or *M. albicaulis*. Both appear to be intergrading throughout south-central and southwestern New Mexico and in the Jemez Mountains.

The above key to *Mentzelia* in New Mexico should serve to accurately place names on most of the populations and individual plants in the state. Yet there will be many cases when populations with obviously different morphologies will bear the same name, which is a less than satisfying result. For now, *M. multiflora* is the catch-all taxon for most of the odd biennial variants in the state and *M. perennis* is, likewise, the name most likely to be applied to the polymorphic yellow-flowered group of perennials on the gypsum and caliche substrates of central and south-central New Mexico.

I should also mention my dilemma with *Mentzelia cronquistii* H.J. Thompson & Prigge or *Mentzelia marginata* Osterhout in San Juan County. These taxa have pubescent petals and have been treated as species by Weber and Wittmann (1996a, as *Nuttallia* species), Christy (1998), and Welsh et al. (2003), but were recently made varieties of *M. marginata* by the Holmgrens (2004). All extended the distribution of *cronquistii* to northwestern New Mexico without specimen citation. The only New Mexican specimen I have seen with abaxially pubescent petals (*G.A. Marley 1840* UNM) has the narrow, almost linear cauline leaves of var. *cronquistii*, but the 5 petals and 5 petaloid outer stamens of var. *marginata*. Normally, I would give more taxonomic weight to flower characteristics than to leaf shape, but have only seen this one odd New Mexican specimen that is well outside the documented range of *marginata*. Plants with abaxially pubescent petals barely enter San Juan County and it is unlikely that both taxa are represented here, so I have conformed to the prevailing notion that only var. *cronquistii* occurs in New Mexico. Our single New Mexican specimen is also atypical in that the petals are greenish yellow and pubescent on both the abaxial and adaxial surfaces, which could be something new and undescribed.

Some progress is being made on the systematics of section *Bartonia* with DNA and cladistic analyses. John Schenk is finishing his dissertation on the phylogeny of this section and he

(Continued on page 4, *Mentzelia*)

Botany is the natural science that transmits the knowledge of plants.

— Linnaeus



(*Mentzelia*, continued from page 3)

and Larry Hufford are also preparing publications for at least two new species in New Mexico (personal communication). They should soon be bringing some important additions and clarification to our understanding of *Mentzelia* in New Mexico.

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Book Review: "Dry Storeroom No. 1: The Secret Life of the Natural History Museum"

By Richard Fortey

Alfred A. Knopf, New York, 335 pp.

"Fortey, senior paleontologist at the Natural History Museum in London, here turns his eye to the inner workings of a natural history museum. Though a paleontologist and an expert on trilobites, Fortey looks at all of the major departments of the museum, examining how they work, providing brief backgrounds on the sciences themselves, and telling stories of many of the museum's scientists both past and present. Explaining how science works through his stories from the museum, Fortey tells of truffles and how they illustrate the science of taxonomy; the Piltdown Man fraud and how more modern techniques exposed the hoax; how one of the ichthyologists found a lost Mozart manuscript while searching for a sixteenth-century book's illustration of a herring; and how the "First Law of Museums"—never throw anything away—turned up a cast of the Koh-i-noor diamond made before it was recut. Well illustrated with photos, this chatty book meanders from tale to tale in the endlessly fascinating manner of a good storyteller." — *Nancy Bent, Booklist*

"Fortey. . . in his affectionate portrayal of the institution in which he spent his working life. . . sneaks us behind the scenes with all the glee of a small child seeing for the first time the museum's iconic *Diplodocus* skeleton. . . always authoritative. . . the beauty of the book is that - just like a museum - you can visit the different sections in any order you choose, lingering in the places that most take your fancy. . . and there is plenty of solid science to enjoy, elucidated with brilliant flair."—*Sunday Times*

"Fortey has a scientist's regard for fact but a poet's delight in wonder. This is a rare intoxicating insight into a hidden community intent on unlocking the universe's myriad secrets."—*Metro*

"Engaging. . . Fortey's writing is enough to make the behind-the-scenes work of the museum totally fascinating. . . (his) delightful book, like the museum it describes, is both rambling and elegant."—*Sunday Telegraph*

"This book is worthy of the place it tells us about, and that is a pretty lofty chunk of praise."—*The Times*

"Richard Fortey's wonderful book . . . shows the unspectacular elements of the museum collection as the most interesting part of its work, while placing the well-known exhibits in a new and often comical light. . . with eccentricity flourishing unchecked among its staff Fortey has amassed a brilliant collection of anecdotes about their habits."—*Daily Telegraph*



Heuchera in New Mexico

by Patrick Alexander

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This key is based primarily on the key to New Mexico *Heuchera* published in 2008 with the description of *Heuchera woodsiphila* (Alexander 2008), with the addition of *H. hallii*, recently found in Colfax County, New Mexico (Hartman *et al.* 2006), but overlooked in preparation of the previous key. Examination of specimens of *H. hallii* kindly sent by Dr. Hartman also requires some reassessment of the affinities of *H. woodsiphila* of the Capitan Mountains. Based on the most recent comprehensive treatment of the genus (Rosendahl *et al.* 1936), *H. woodsiphila* is a member of *Heuchera* section *Holochloa* subsection *Cylindrica*, which is separated from section *Holochloa* subsection *Novomexicanae* primarily by having apetalous flowers greater than 5 mm long. Subsection *Cylindrica* is composed of several species of the northwestern United States, of which the nearest populations to New Mexico occur in northeastern Nevada. However, in comparing *H. woodsiphila* to *H. hallii* of subsection *Novomexicanae* I find the two essentially indistinguishable except that petals are absent in the former and present in the latter. This suggests that *H. woodsiphila* fits the normal pattern of endemics to the greater Sacramento Mountains, being closely allied to species of the Rocky Mountains, rather than being a wide disjunct from a group of species otherwise found far to the northwest. However, more reliable resolution of infrageneric taxa in *Heuchera* awaits a much-needed phylogenetic analysis of the genus.

Heuchera

[for Johann Heinrich von Heucher (1677-1747), German professor of medicine and botany at Wittenberg, specializing in medicinal plants]

- 1 Stamens equal to or exceeding the sepals
 - 2 Inflorescence panicle-like, open...***H. rubescens*** Torrey PINK ALUMROOT. Crevices of rocky cliffs and outcrops in the mountains.
 - 2 Inflorescence raceme-like, narrow...+***H. pulchella*** Wooton & Standley SANDIA ALUMROOT. Endemic to New Mexico, limestone cliffs in the Sandia and Manzano Mountains.
- 1 Stamens shorter than the sepals
 - 3 Flowers deep pink to red...***H. sanguinea*** Engelmann CORAL-BELLS. Moist, shaded, rocky places in the southwestern mountains.
 - 3 Flowers greenish white to yellowish
 - 4 Hypanthia deeply campanulate; petals erect and shorter than to equalling the sepals, or absent
 - 5 Sepals 2.5--4 mm long
 - 6 Petals absent...+***H. woodsiphila*** P.J.Alexander CAPITAN ALUMROOT. Forested granitic talus, known only from the Capitan Mountains.
 - 6 Petals present...***H. hallii*** Gray FRONT RANGE ALUMROOT. Stream banks and moist rocky outcrops in the northern mountains, as yet known only from Colfax County.
 - 5 Sepals less than 2 mm long
 - 7 Sepals glandular-puberulent, the longest hairs ≤ 0.2 mm...***H. novomexicana*** Wheelock NEW MEXICO ALUMROOT. Rocky mountain slopes and ledges.
 - 7 Sepals glandular-hirsute, the longest hairs 0.3--0.6 mm long...***H. glomerulata*** Rosendahl, Butters, & Lakela CHIRICAHUA ALUMROOT. Shaded rocky slopes in the mountains of the bootheel region.
 - 4 Hypanthia shallow, saucer-shaped; petals spreading, usually longer than the sepals, rarely equaling them
 - 8 Petioles hirsute with long, spreading, gland-tipped hairs to 3--6 mm long as well as glandular-puberulent...+***H. wootonii*** Rydberg WOOTON'S ALUMROOT. Endemic to New Mexico, rocky outcrops and brushy mountain slopes in Catron, Lincoln, and Otero counties.
 - 8 Petioles glandular-puberulent only, without long, spreading hairs...***H. parvifolia*** Nuttall ex Torrey & Gray LITTLE-LEAF ALUMROOT. Rock outcrops and crevices of ledges and cliffs in the mountains.

Literature Cited

- P.J. Alexander, 2008. *Heuchera woodsiphila* (Saxifragaceae), a new species from the Capitan Mountains of New Mexico. J. Bot. Res. Inst. Texas 2(1) 447-453.
- R.L. Hartman, B. Reif, B.E. Nelson, and B. Jacobs, 2006. *New vascular plant records for New Mexico*. Sida 22(2): 1225-1233.
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Founded in 1996, SO BE FREE (**SPRING OUTING, BOTANICAL EXCURSION, FORAY, RETREAT, AND ESCAPE TO THE ENVIRONMENT!**) is a series of Western Bryological Forays started by the Bryolab at UC Berkeley, but open to all botanists. The main focus is on bryophytes, but we also encourage experts on other groups to come along and smell the liverworts. We welcome specialists and generalists, professionals and amateurs, master bryologists and rank beginners. SO BE FREE is held each spring, somewhere in the Western U.S., associated with spring break at universities. The usual tradition is to have a four-day, three-night schedule with communal meals, in inexpensive and remote locations. Evening slide shows and informal talks are presented as well as keying sessions with microscopes. In addition to seeing interesting wild areas and learning new plants, important goals for SO BE FREE include keeping western bryologists (and friends) in touch with each other and teaching beginners. For glimpses of the past outings, consult the SO BE FREE web site: <http://ucjeps.berkeley.edu/bryolab/trips/sobefree.php>.

The 2010 SO BE FREE will be held in the Sacramento Mountains in south-central New Mexico, not far from White Sands National Monument and the Trinity Site of atomic bomb fame. The Sacramento Mountains range from 4500 ft in the foothills to nearly 12,000 ft at nearby Sierra Blanca. The mountains are surrounded by Chihuahuan Desert and short-grass plains. The area is rather dry southern Rocky Mountain vegetation, with woodlands and savannahs at the lower elevations, ranging through coniferous forests at mid-elevations, to subalpine forests at the highest elevations. We will visit sites mostly in the mountains, at springs, seeps, and shaded north-slopes, but hope to have a trip to the Chihuahuan Desert to examine biological soil crusts in the White Sands. Beginning bryologists are welcome. We will provide special learning activities for beginners, as well as general field trips for all, from novice to specialist.

SO BE FREE 15 23-26 March 2010 Sacramento Mts, New Mexico

at Sacramento Methodist Assembly Camp & Conference Center <sacramentoassembly.org>

Name: _____

Mailing Address: _____

Phone: _____ Email: _____

Room and Board (includes all fees, meals, beds, linen – everything for 3 nights, Mar 23, 24, 25). We will put everyone in Forrest Lodge (motel-style with two beds and private bath) if possible, first-come-first-served, but those paying the Student Rate will be housed in Aspen Lodge (beds & bunks, private bath) if necessary, as well as late-comers if space is limited. No one will be in dorms.

One bed, sharing a room with one other person: \$140 (after Jan 16, 2010 = \$190) Gender: _____

Couple in a room: \$280 (after Jan 16, 2010 = \$330)

One person in a room: \$240 (after Jan 16, 2010 = \$290)

Student Rate, for bona fide students living in poverty and others in genuine financial straits: one bed, sharing a room with one or more persons: \$65 (after Jan 16, 2010 = \$115) Gender: _____

Meal Preferences: no preference vegetarian

Special Dietary Needs: Please explain here any special dietary requirements you have, such as gluten or lactose intolerance; we will visit with the food service people and notify you of the arrangements.

DEADLINE for regular rates: Money received by January 16, 2010.

Mail this form, with check made out to Range Science Herbarium, to _____
Receipts will be provided by email when money is received.

Kelly Allred – SOBEFREE
New Mexico State University
MSC 3I, PO Box 30003
Las Cruces, NM 88003

All arrangements are being made by Kelly Allred. Contact me with questions: kallred@nmsu.edu

Do NOT contact Sacramento Methodist Assembly for reservations.



Plant Distribution Reports

New records and significant distribution reports for New Mexico plants should be documented by complete collection information and disposition of a specimen (herbarium). Exotic taxa are indicated by an asterisk (*), endemic taxa by a cross (+).

— Ken Heil [San Juan College, 4601 College Blvd., Farmington, NM 87402] & Steve O'Kane Jr. [University of Northern Iowa, 1227 W. 27th St., Cedar Falls, IA 50614]

Elatine chilensis A. Gray (Elatinaceae, waterwort): Taos County: State hwy 567, about 2.5 miles east of US 285, N 36°21.760 W 105°51.026, stock pond above large ravine, 7100 ft, 20 June 2008, Ken Heil 29439, with Steve O'Kane & Wayne Mietty (SJNM).

— Richard Worthington [PO Box 13331, El Paso, TX 79912]

Cyperus pseudothyrsiflorus (Kukenthal) R. Carter & S. D. Jones (Cyperaceae): Doña Ana County: Organ Mts, 0.3 air miles north from top of Organ Needle (south of Aguirre Springs and upper Pine Tree Trail), T22S, R4E, Sec. 32, NW of SW, 7500-8000 ft, 29 Aug 1992, Worthington, R.D. 21452 (UTEP, SAT, NMC).

— Kelly Allred [Dept. Animal & Range Sciences, New Mexico State Univ., Las Cruces, NM 88003]

**Cylindropuntia bigelovii* (Engelmann) F.N. Knuth (Cactaceae, teddy-bear cholla): Doña Ana County: Las Cruces, Las Alturas subdivision, undeveloped land among the residential properties, adjacent to and west of Maxim Court, N32° 15.633 W106° 43.294, Chihuahuan Desert scrub and wash vegetation with mesquite and desert willow, sandy ground, 4020 ft, small

population of about 15 plants, photos by Allred, no specimens taken.



**Ranunculus acris* Linnaeus: Catron County: Gila National Forest, Glenwood Fish Hatchery, Glenwood, plants 2 to 4 ft tall,

flowers yellow, small stream and ponds at hatchery, at edge of water, 4 June 1965, J.R. Crutchfield 121 (NY) (Det. B. Ertter). [This marks the first verified specimen of this species from New Mexico. The specimen may be viewed at the New York Botanical Garden Virtual Herbarium website—<http://sciweb.nybg.org/science2/hcol/allvasc/index.asp>. Thanks to Pat Holmgren for calling this to our attention.]

Botanical Literature of Interest

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Kelly Allred

The famed explorer of Africa, Mungo Park, having been captured by natives and then escaped, spied a little moss, *Fissidens bryoides*, while lying on the ground in desperate straits and despair, as recorded in his *Travels in the Interior of Africa* (1878):

"I considered my fate as certain, and that I had no alternative but to lie down and perish. ... At this moment, painful as my reflections were, the extraordinary beauty of a small moss in fructification irresistibly caught my eye. I mention this to shew from what trifling circumstances the mind will sometime derive consolation; for though the whole plant was not larger than the top of one of my fingers, I could not contemplate the delicate conformation of its roots, leaves, and capsule without admiration. Can that Being (thought I), who planted, watered, and brought to perfection in this obscure part of the world a thing which appears of so small importance, look with unconcern upon the situation and sufferings of creatures formed after his own image? Surely not! Reflections like these would not allow me despair. I started up, and disregarding both hunger and fatigue, travelled forwards, assured that relief was at hand."



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