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In This Issue —

The Novelty of Novelties...?

A recent Associated Press report (June 16, 2005) concerning the discovery of a new species of plant in Arkansas gives the impression that the discovery of new species in North America is a rare occurrence, hence newsworthy to the popular press.

New Mexico botanists may be interested to know "the rest of the story." In fact, the discovery of new species in North America is quite a common event in the botanical world, as evidenced by the following two abstracts of much fuller reports (used by permission). (ed.)

Taxonomic Novelties from North America north of Mexico: A 20-Year Vascular Plant Diversity Baseline

Ronald L. Hartman and B. E. Nelson

Monographs in Systematic Botany from the Missouri Botanical Garden 67: 1-59. 1998.

ABSTRACT

A survey of the literature and the Gray Herbarium Card and Kew indices was performed to determine the number of taxa new to science published in North America north of Mexico from 1975 through 1994. A total of 99 families were represented, although 34 contained 1025 taxa (85.9% of the total). Five genera, *Apacheria*, *Cochiseia*, *Dedeckera*, *Shoshonea*, and *Yermo*, and one nothogenus, x*Dryostichum*, were based solely on newly described species. New species and terminal infraspecific taxa were distributed as follows: pteridophytes with 78 (6.5%), gymnosperms with 6 (0.5%), and angiosperms with 1113 (93%) for a sum of 1197 (59.85 taxa or 27.9 species per year). During this 20-year period, the five-year averages for the publication of new species were 28, 35.6, 26.2, and 30.8. Comparable averages for subspecies and varieties were 7.8 and 14.8; 7 and 16; 5.8 and 17; 7.2 and 14.8, respectively. The total number of new subspecies proposed as terminal taxa was 139 (30.7%), compared to 313 (69.3%) for varieties. Data on species for the period 1955 through 1974 are also provided (32.1 species per year). With the exception of the years 1971 through 1974, when more new species were proposed, the frequency of taxonomic novelties is relatively constant over the 40-year (30 species per year). A total of 505 authors participated in the publication of the 1197 new taxa, although 11.8 percent of them authored 703 taxa (59% of total). Ninety-one books and journals were involved, although 36 served as the outlet for 1093 novelties. The new taxa were divided among the following categories of study: floristics, 375 taxa; plants of conservation concern, 33; taxonomy, 703; and biosystematics, 86. The states yielding the greatest number of holotypes were: California, 217; Utah, 183; Texas, 70; Nevada, 63; Arizona, 57; Oregon, 42; **New Mexico**, 41 [emphasis added]; Florida, 38; Idaho, 33; Wyoming, 32, Colorado, 29, Washington, 13, Montana, 12; British Columbia, 9, and Alberta, 3 (Rocky Mountain political entities in bold). Likewise, the leading floristic areas, based on holotypes, were Intermountain, 287; California, 217; Rocky Mountain, 131; Southeast, 113; Southwest, 107, Texas, 70, Canada, 62, Northwest, 64, and Northeast 51. It is concluded that the resurgence of biodiversity studies, as well as the efforts of monographers and contributors to regional floristic projects and to Flora of North America (FNA), will help maintain the current level of publication of novelties, but that within the next 10 to 15 years the discovery of previously unknown taxa is likely to decrease.

(Continued on page 2, Novelties)

Botanice est Scientia Naturalis quae Vegetabilium cognitiorem tradit.

— Linnaeus

(Novelties, continued from page 1)

Stated differently, this is both a reflection of the amount of floristic and taxonomic work being done by state or region as well as the amount of continued investigation warranted. A more extensive discussion of floristic surprises in North America and a review of the justification for floristic research may be found in Ertter (2000) [see next].

Floristic Surprises in North America north of Mexico

Barbara Ertter

Annals of the Missouri Botanical Garden: Vol. 87, No. 1, pp. 81–109. 2000.

ABSTRACT

Contrary to recurring perceptions that the flora of North America north of Mexico has been fully explored and cataloged, the rate of ongoing discoveries has remained remarkably constant for much of the last century and shows no evidence of tapering off. This is particularly evident in western and southeastern North America, where dramatic new species and occasional monotypic genera are still coming to light, even along highways and near major cities. Furthermore, the same level of ongoing discovery also characterizes other aspects of floristic information, including the distribution of rare species and the occurrence of invasive pest plants. The majority of ongoing discoveries are dependent on individuals and organizations operating outside of academia, with declining opportunities for formal training in floristics or access to scientific expertise when complex situations are encountered. This situation is connected to the perception of floristics as rote data compilation, when it is in fact better understood in the context of a massive attempt to model biodiversity, resulting in an intricate suite of nested hypotheses that are constantly being tested and modified. The incompleteness of our floristic knowledge takes on critical significance in an era when decisions are being made that will irrevocably determine the fate of our national floristic heritage. The cost of this ignorance can cut multiple ways, increasing the risk of misplaced mitigation efforts as well as avoidable loss of irreplaceable biodiversity. Although the magnitude of the task is daunting, significant advances are achievable in a collaborative framework, which would yield a vastly improved floristic knowledge base for informed decision-making.

A Clarification of some *Malacothrix* in New Mexico

Richard Spellenberg

New Mexico State University, MSC Box 3AF, Las Cruces, NM 88003

Recently, while preparing for a New Mexico Native Plant Society field trip in September at Aguirre Springs in the Organ Mountains, I was collecting taxa unknown to me or that seemed worthy to add to the Biology Department herbarium (NMC). I encountered an Asteraceae that I had previously not seen. The plant had only buds and flowers, so a duplicate specimen was sent to Dr. John Strother at UC for identification. Both of us arrived at the genus *Malacothrix* independently, but were stalled at that point. After I collected a few fruits in June we arrived at *Malacothrix stebbinsii*, a species previously unreported for the state. This resulted in a re-examination of specimens at NMC that were the basis of a report for *M. sonorae* as a new record for New Mexico (Spellenberg et al., 1986, Additions to the Flora of New Mexico, Sida 11:455-470). Through the use of keys in F. Shreve and I. L. Wiggins, Vegetation and Flora of the Sonoran Desert (1964) and W. H. Davis's key in the treatment of *Malacothrix* for Flora North America (in press), I have arrived at the conclusion that there are two very similar species of *Malacotrix* in southern New Mexico, one still unreported, distinguished by fruit characteristics reviewed below, and leaf margin features that usually do not show on specimens because they are wilted or withered prior to pressing. Citations of documenting collections follow (at NMC and elsewhere). Those now identified as *M. stebbinsii* from Catron and Grant counties earlier were used to support the presence of *M. sonorae* in New Mexico in the 1986 Sida paper, cited above.

Malacothrix sonorae W.H. Davis and P.H. Raven (cypsela retains 2 bristles). New Mexico: Luna County: Tres Hermanas Mts., canyon on NE side of South Peak, 27 Apr 1991, Worthington 19127.

Malacothrix stebbinsii W.H. Davis and P.H. Raven (cypsela retains 1 bristle). New Mexico: Catron County: Sheridan Gulch trail ca. 6 mi SE of Glenwood, 4 mi from Hwy 180, 21 May 1983, Soreng and Ward 2130b; Doña Ana County: NE portion of Organ Mts. at Aguirre Springs Recreation Area, Pine Tree Loop Trail, 29 Apr 2005, Spellenberg and Sweeney 13520; Grant County: Little Hatchet Mts., 5.3 rd. mi. NW of Hachita by Hwy. 9, 24 Apr 1982, Worthington 8157.

Mistletoes (Viscaceae) of New Mexico

Roger S. Peterson

New Mexico Natural History Institute, 1750 Camino Corrales, Santa Fe, NM 87505 [RogPete@aol.com]

New Mexico's mistletoes, all native, comprise six species of *Arceuthobium* (three of them common and widespread) and six of *Phoradendron* (three of them common and widespread). Thanks to decades of fieldwork by the late Frank G. Hawksworth of the Forest Service and Delbert Wiens of the University of Utah, taxonomy and distributions of these species are well known. Here I excerpt mainly from their work to update the treatment in Martin and Hutchins' A Flora of New Mexico.

Martin and Hutchins use the family name Loranthaceae. Its subfamily Viscoideae is now treated as a family, Viscaceae. Their *Phoradendron bolleanum* var. *bolleanum* and *Ph. flavescens* var. *orbiculatum* (*Ph. leucarpum*) do not occur in New Mexico, and others of their names have changed, at least in the narrowly defined species concepts of Hawksworth and Wiens that I follow here.

Kuijt (2003) defines broader species, treating *Ph. macrophyllum* and *Ph. coryae* as subspecies of *Ph. serotinum* and leaving *Ph. hawksworthii* in *Ph. bolleanum.* At least in the latter instance he seems to ignore major distinctions.

Three additional *Arceuthobium* species are nearby, but given the exhaustive searches by Hawksworth and Robert L. Mathiasen are unlikely to occur in New Mexico. They are *A. cyanocarpum* parasitizing *Pinus flexilis* in southern Colorado, *A. abietinum* on *Abies* in southeastern Arizona, and *A. blumeri* on *Pinus strobiformis* in southeastern Arizona.

Phoradendron plants make their own food, taking water and inorganic nutrients from their hosts. Only when infection is heavy or drought is severe do they harm their hosts. Dwarf mistletoes (*Arceuthobium*) take food as well as water from their hosts, eventually killing them.

Phoradendron fruits are important food for wildlife and the seeds are distributed mainly in bird droppings. *Arceuthobium* fruits are discharged explosively so infection-centers grow centrifugally, the rate determined in part by the length of fruit-flight.

Dwarf mistletoes are usually associated with branch proliferations or witches'-brooms. *A. douglasii* grows systemically in host shoots, causing large brooms in which small mistletoe plants appear throughout. Other dwarf mistletoes are seldom systemic and usually cause more definite, denser, smaller brooms with plants near their bases. Brooms are common also from *Phoradendron hawksworthii* infections but are unusual in our other *Phoradendron* species. Birds and squirrels use mistletoe brooms for nesting.

Because our mistletoes generally keep to their principal hosts, identifications are easy. In the following key, host relations are those observed in New Mexico, including departures from usual hosts for *A. vaginatum* and *A. douglasii*.

Key to the Species in New Mexico

1 Parasites of *Pinus*, *Pseudostuga*, *Picea*, and *Abies*; stems quadrangular at least when young and usually less than 20 cm long; leafless; berries compressed, colored similarly to shoots, explosive; anthers 1-loculate ..... ***Arceuthobium***

2 Parasites of *Pinus*

3 Plants mostly 7-20 cm tall and 2-10 (average 4) mm in basal diameter

4 Shoots greenish brown, fruits glaucous, on *Pinus leiophylla* in Hidalgo County ..... ***A. gillii***

4 Shoots yellowish to reddish brown, fruits not glaucous, on other pines elsewhere (principally *P. ponderosa* and *P. arizonica*) ..... ***A. vaginatum***

3 Plants less than 13 cm tall, 1-4 (averages 1.8 and 2.0) mm in basal diameter

5 Parasites of white (5-needle) pines; mean plant height 3.5 cm ..... ***A. apachecum***

5 Parasites of pinyon (1-3 needle) pines; mean plant height 8 cm ..... ***A. divaricatum***

2 Parasites of *Pseudotsuga*, *Picea*, and *Abies*

6 Plants mostly 2-4 cm tall, throughout brooms in *Pseudotsuga* and occasionally *Abies* and rarely *Picea* ..... ***A. douglasii***

6 Plants mostly 5-10 cm tall, at bases of small witches'-brooms in *Picea* ..... ***A. microcarpum***

(*Continued on page 4, Mistletoes*)

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

— Linnaeus

(Mistletoes, continued from page 3)

1 Parasites of woody dicots and *Juniperus*; stems terete and usually over 15 cm long; leafy or leafless; berry globose, whitish or pink, not explosive; anthers 2-loculate ..... ***Phoradendron***

7 Parasites of woody dicots

8 Leaves reduced to minute scales; on leguminous plants ..... ***Ph. californicum***

8 Leaves more than 1 cm wide; not on legumes

9 Leaves whitish-pubescent, 2-4 cm long, primarily on *Quercus* ..... ***Ph. coryae***

9 Leaves green, glabrous or glabrescent, 3-6 cm long, primarily on *Populus*, *Platanus*, *Salix*, and *Fraxinus*, also other woody dicots .... ***Ph. macrophyllum***

7 Parasites of *Juniperus*

10 Leaves reduced to minute scales ..... ***Ph. juniperinum***

10 Leaves well developed, about 2 mm wide

11 Leaf hairs minute, stellate ..... ***Ph. capitellatum***

11 Leaf hairs simple or none ..... ***Ph. hawksworthii***

Arceuthobium apachecum Hawks. & Wiens. Infects *Pinus strobiformis* in the Capitan, Gallo, Mangas, Mogollon, and San Mateo mountains and the Black Range.

Arceuthobium divaricatum Engelm. Common on *Pinus edulis* including var. *fallax* and *P. discolor* in the western two-thirds of New Mexico (add Doña Ana, Eddy, Luna, and Torrance to counties mapped by Martin and Hutchins).

Arceuthobium douglasii Engelm. Common on *Pseudotsuga menziesii* in the western two-thirds of New Mexico (add Doña Ana and Hidalgo to counties mapped by Martin and Hutchins). Occasionally infects *Abies* species where they grow with *Pseudotsuga* and rarely also *Picea* (Mathiasen #8006 in 1980, south of Cloudcroft).

Arceuthobium gillii Hawks. & Wiens. On *Pinus leiophylla* var. *chihuahuana* in the Animas Mountains.

Arceuthobium microcarpum (Engelm.) Hawks. & Wiens. On *Picea pungens* and occasionally *P. engelmannii* in the Mogollon Mountains and near Hay Canyon in the Sacramento Mountains. In Arizona rarely infects *Pinus aristata* and *Abies* species.

Arceuthobium vaginatum (Willd.) Presl subsp. ***cryptopodum*** (Engelm.) Hawks. & Wiens. Common in the western three-fourths of New Mexico plus Eddy County on *Pinus ponderosa* and *P. arizonica*. On *P. engelmannii* nearby in Arizona. Occasionally infects *P. aristata* and rarely *P. strobiformis* where these occur with the hard pine hosts.

Phoradendron californicum Nutt. Infects *Prosopis* and *Acacia* in Guadalupe Canyon and at Granite Gap in the Peloncillo Mountains. At Granite Gap it was killed out by cold in 1978 according to John Hubbard 1981 (Native Plant Society Newsletter), but it has been found anew there by David Conklin.

Phoradendron capitellatum Torr. [*Ph. bolleanum* var. *capitellatum* (Torr.) Kearney & Peebles]. Infects *Juniperus coahuilensis* in Hidalgo, Grant, and Luna counties.

Phoradendron coryae Trel. (*Ph. villosum* subsp. *coryae*, *Ph. serotinum* subsp. *tomentosum*, *Ph. havardianum*). Infects *Quercus* species and much less commonly other shrubs. In southern New Mexico (add Otero to counties mapped by Martin & Hutchins and a 1930 collection is reported from Albuquerque).

Phoradendron hawksworthii Wiens in Wiens and Hawksworth 2002, long recorded as *Ph. bolleanum*. Infects *Juniperus monosperma* and *J. pinchotii* in Doña Ana, Eddy, Lincoln, Otero, and (*fide* David Conklin) Socorro counties.

Phoradendron juniperinum Engelm. ex A. Gray. Common on all *Juniperus* species except *J. communis* in the western four-fifths of New Mexico (unreported in Colfax, De Baca, Mora, and the five easternmost counties). In Arizona also known on *Cupressus* and *Chamaebatiara* (Rosaceae).

Phoradendron macrophyllum (Engelm.) Cockerell (*Ph. flavescens* var. *m.*, *Ph. tomentosum* var. *m.*, *Ph. serotinum* var. *m.*, *Ph. cockerellii*). Most common on *Populus*; also on *Salix*, *Platanus*, *Fraxinus*, *Alnus*, *Juglans*, and other deciduous trees in southwestern New Mexico (add Catron to counties mapped by Martin & Hutchins). Gradually extends its range northward in the Rio Grande valley but is eventually killed back in severe winters.

Literature: Ingress to that on *Arceuthobium* can be gained from Hawksworth and Wiens 1996, U.S. Dept. Agric. Handbook 709: 1-410. That on *Phoradendron* can be reached from Wiens and Hawksworth 2002, El Aliso 21: 33-43, and Kuijt, 2003, Syst. Bot. Monogr. 66: 1-643.

Thanks for help: Robert L. Mathiasen, Northern Arizona University, and (both Forest Service, USDA) David Conklin, Regional Office, Albuquerque, and Brian Geils, Rocky Mountain Research Station, Flagstaff.

A Synopsis of *Symphoricarpos* (Caprifoliaceae) in New Mexico

Kelly W. Allred

Range Science Herbarium, Department of Animal & Range Sciences, New Mexico State University, Las Cruces, NM 88003

Symphoricarpos (snowberry) are branching shrubs with simple, opposite leaves, united petals, inferior ovaries, and berry-like fruits. They are found nearly throughout the state on foothills and mountain slopes, from about 5,000 feet to over 10,000 feet in elevation. Treatments pertinent to New Mexico are summarized in the table below.

Wooton & Standley 1915[1]	**Jones 1940**[2]	**Martin & Hutchins 1981**[3]	**This Synopsis 2005**
pauciflorus	*albus*	*albus* var. *pauciflorus*	*albus*
rotundifolius	*rotundifolius*	*rotundifolius*	*rotundifolius*, *rotundifolius* phase
oreophilus	*oreophilus*	*oreophilus*	*rotundifolius*, *oreophilus* phase
	utahensis	*utahensis*	*rotundifolius*, *utahensis* phase
	palmeri	*palmeri*	*rotundifolius*, *utahensis* phase
	occidentalis	*occidentalis*	*occidentalis*
	longiflorus	*longiflorus*	*longiflorus*
	microphyllus	not mentioned	absent from New Mexico

[1]Flora of New Mexico, Contr. U.S. Natl. Herb. 19:1-794. 1915.
[2]A monograph of the genus *Symphoricarpos*, J. Arnold Arboretum 21:201-252. 1940.
[3]A Flora of New Mexico, vol. 2, Vaduz: J. Cramer. 1981.

Distinctions among the species are based on pubescence of foliage and twigs and on corolla features. Positive identification requires flowers in many cases, but with experience reasonably accurate determinations may be obtained from vegetative material, based upon the following outline:

A. Twigs with conspicuous, dense, straight, spreading, short hairs = *rotundifolius*
B. Leaves tiny, glabrous, lanceolate, glaucous; bark whitish = *longiflorus*
C. Twigs and foliage glabrous = *oreophilus*
D. Leaves large, 3-10 cm long = *occidentalis*
E. Twigs puberulent with incurved hairs = *albus* and *utahensis*. These two are impossible to tell apart without flowers. With flowers the distinction is simple and obvious: corollas short, campanulate, with lobes equalling the tube in *albus;* and corollas longer, funnelform/salverform, with lobes much shorter than the tube in *utahensis*.

Leaf lobing and toothing is quite variable and can occur in nearly all the forms and will not serve to distinguish them (though *S. longiflorus* seems to be consistently entire). It is not uncommon to find both entire and coarsely toothed or even lobed leaves on the same plant. There is perhaps a tendency to have more toothed and lobed leaves on shaded plants, but this is far from consistent, and many plants in full sun will show abundant lobing. The same seems to be true when comparing long stems of "sucker growth" with shorter, cropped stems: both kinds of stems may bear entire or lobed leaves.

One finds significant intergradations among the species, especially within the *rotundifolius* complex. Leaf and pubescence features in particular are sometimes ambiguous or inconclusive. For this reason, I view *S. rotundifolius* in an expanded sense, to include several similar taxa: *S. oreophilus*, *S. utahensis*, and *S. palmeri*. One might recognize these at the varietal level, but appropriate epithets are not available for all of the taxa, and I have not wanted to create them. Therefore, I apply the term *phase* to these well-known forms.

Jones (1940) reported *Symphoricarpos microphyllus* Kunth from New Mexico, based upon Wooton s.n. collected in 1906 from Craters, Valencia County. A duplicate at NMC corresponds unambiguously to *S. utahensis*, or what I call here *S. rotundifolius*, the *utahensis* phase. I therefore exclude *S. microphyllus* Kunth from New Mexico.

(Continued on page 6, Symphoricarpos)

(Symphoricarpos, Continued from page 5)

1 Young twigs and foliage glabrous
  2 Leaves lanceolate to oblanceolate, usually glaucous, 0.5-1.5 cm long, 2-5 mm wide; young twigs whitish ..... ***S. longiflorus***
  2 Leaves ovate to orbicular, not glaucous, 1-3 cm long, 8-18 mm wide or more; young twigs usually dark (the *oreophilus* phase) ..... ***S. rotundifolius***
1 Young twigs and foliage variously puberulent to pubescent
  3 Corolla campanulate, the lobes as long as the tube
    4 Blades mostly 1-3 cm long; style and stamens scarcely exserted from the corolla ..... ***S. albus***
    4 Blades mostly 3-10 cm long; style and stamens noticeably exserted from the corolla ..... ***S. occidentalis***
  3 Corolla funnelform to salverform, the lobes much shorter than the tube
    5 Corolla salverform, narrow, about 1 mm wide just below the lobes; leaves lanceolate to oblanceolate, usually glaucous, 0.5-1.5 cm long, 2-5 mm wide; young twigs whitish ..... ***S. longiflorus***
    5 Corolla funnelform, broader, 2-3 mm wide just below the lobes; leaves ovate to orbicular, glaucous to green, 1-4 cm long, 5-25 mm wide; young twigs whitish to dark ..... ***S. rotundifolius***

Symphoricarpos albus (Linnaeus) Blake COMMON SNOWBERRY [*Symphoricarpos albus* (Linnaeus) Blake var. *pauciflorus* (Robbins ex Gray) Blake, *Symphoricarpos pauciflorus* Robbins ex Gray, *Symphoricarpos racemosus* Michaux var. *pauciflorus* Robbins ex Gray, *Vaccinium album* Linnaeus]. Twigs puberulent with short, curved hairs; leaves 1-3 cm long, 8-25 mm wide, at least sparsely short-pilose along the veins; corolla pinkish, campanulate, 5-6 mm long, the lobes about as long as the tube; style and stamens not or scarcely exserted from the corolla. ~ Brushy slopes, canyons, and clearings in the mountains and foothills, 7,000-8,000 ft. We are on the western edge of its range, and this species is known from only four scattered collections in the state. It is frequent on the eastern slopes and plains in Colorado, but absent on the western (Weber & Wittmann. Colorado Flora. 2001). Without flowers it is easily confused with the very common *utahensis* phase of *Symphoricarpos rotundifolius*.

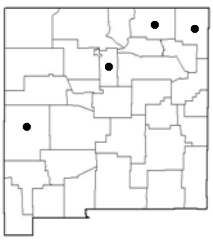
Symphoricarpos longiflorus Gray DESERT SNOWBERRY [*Symphoricarpos fragrans* Nelson & Kennedy]. Twigs glabrous to sparsely puberulent, whitish and contrasting with the green-glaucous foliage; leaves 5-15 mm long, 2-5 mm wide, mostly glabrous but also sparsely puberulent; corolla pinkish, salverform, narrow, 9-12 mm long, about 1 mm wide just below the limb, glabrous within, the lobes much shorter than the tube; style and stamens included. ~ Desert scrub communities in the southern foothills, 5,000-6,600 ft. Small green-glaucous leaves contrasting with whitish twigs are distinctive, as well as the narrow salverform corolla.

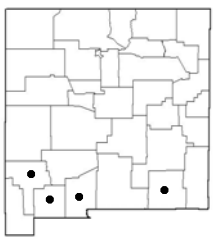
Symphoricarpos occidentalis Hooker WESTERN SNOWBERRY. Twigs puberulent with short, curved hairs; leaves 2.5-11 cm long, 2-6 cm wide, ovate, thick and somewhat leathery when mature, rarely glabrous; corolla campanulate, 6-9 mm long, the lobes as long as the tube; style and stamens shortly exserted from the corolla. ~ Barely entering New Mexico in Colfax County, in moist canyons and rocky ravines in the foothills and mountain slopes, 6,700-8,200 ft. The large, thick leaves and short, campanulate corolla can hardly be confused with any of the other species.

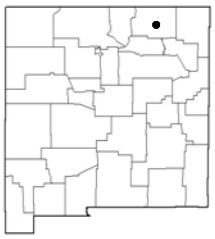
Symphoricarpos rotundifolius Gray MOUNTAIN SNOWBERRY. Twigs glabrous to puberulent, the hairs straight to curved; leaves 1-4 cm long, 5-25 mm wide, glabrous to puberulent-pilose; corolla tubular-funnelform, 9-13 mm long, 2-3 mm wide just below the limb, pilose to nearly glabrous within, the lobes much shorter than the tube; style and stamens included. ~ Widespread throughout the state in the mountains and foothills, in a wide variety of habitats and terrain, 5,800-10,200 ft. As treated herein, this species encompasses wide-ranging variation, some of which has received taxonomic status at the species level, but much of which is simply intergradations among numerous forms. The following key relies upon extremes of variation; intervening conditions are not uncommon.

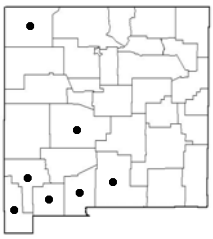
a Twigs and usually the foliage glabrous; corolla tube sparsely pilose to glabrous within...the *oreophilus* phase [*Symphoricarpos oreophilus* Gray].
a Twigs and foliage variously pubescent; corolla tube usually densely pilose within
  b Hairs on the twigs spreading, ± straight, conspicuous...the *rotundifolius* phase
  b Hairs on the twigs appressed or incurved, less conspicuous...the *utahensis* phase [*Symphoricarpos microphyllus* of NM reports, not Kunth, *Symphoricarpos oreophilus* Gray var. *utahensis* (Rydberg) A. Nelson, *Symphoricarpos palmeri* G.N. Jones, *Symphoricarpos utahensis* Rydberg].

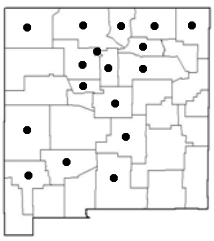
Many thanks to the curators and directors of the herbaria at the University of New Mexico (UNM) and New Mexico State University (NMC, NMCR), who generously allowed me unrestricted access to their specimens and resources. Lynda Allred helped record distribution data. The maps below give only county-level distributions; a complete list of specimens examined is available upon request.

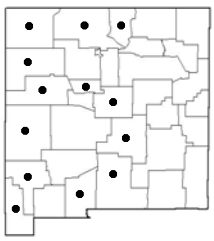

S. albus


S. longiflorus


S. occidentalis


S. rotundifolius *rotundifolius* phase


S. rotundifolius *oreophilus* phase


S. rotundifolius *utahensis* phase

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 (+).

— Robert C. Sivinski [P.O. Box 1948, Santa Fe, NM 87504] & Richard Worthington [P.O. Box 1333, El Paso, TX 79913]

Amsinckia menziesii (Lehmann) A. Neson & J.F. Macbride var. ***intermedia*** (Fischer & Meyer) Ganders (Boraginaceae): Hidalgo County, east bajada of Peloncillo Mts, Doubtful Canyon arroyo, T22S R21W Sec 34 SE1/4, 31 Mar 2005, Sivinski 5961 (UNM); Hidalgo County, east bajada of Peloncillo Mts, Rustler Draw, T23S R21W Sec 11 SW1/4, 31 Mar 2005, Sivinski 5967 (UNM); east face of large mountain 2.5 air miles north of Steins Peak, 5100-5500 ft, steep canyon draining east, igneous substrate, 10 Apr 2005, Worthington 33068 (NMCR, UTEP).

Astragalus eremiticus Sheldon (Fabaceae): Hidalgo County: 4.5 mi NE of Virden on the Riley Peaks, T18S R20E Sec 29 NE1/4, 4470 ft, 22 Mar 1984, R.S. Peterson 84-85 (NMC, UNM); 5 air miles NE of Virden, Riley Peaks, T18S R20W Sec 9 NW1/4; 6 April 1986, R. Spellenberg, N. Zucker and J. Zimmerman 8401 (NMC, UNM); On gullies, bluffs along south bank of Gila River opposite Virden, 4 May 1986, R.C. Barneby 18083 (NMC, UNM); Ca 3 air miles NE of Virden, Mexican Canyon, T18S R20W Sec 30 NE1/4, 1290 m, 31 March 2005, R. Sivinski 5954 (UNM). [These records document old and new collections of this species, omitted from our lists.]

— Kelly Allred [MSC Box 3-I, New Mexico State University, Las Cruces, NM 88003]

Cirsium arizonicum (Gray) Petrak var. ***rothrockii*** (A. Gray) Keil (Asteraceae): Hidalgo County: Peloncillo Mts, Clanton Draw, 5500 ft, 3 Sep 1982, Bob Hutchins 10512 (UNM). [det. by David Keil]

****Gypsophila scorzonerifolia*** Seringe (Caryophyllaceae): In issue 31 I reported *Gypsophila paniculata* Linnaeus, based on Wagner & Sabo 3233 (NMC). The recent treatment of Caryophyllaceae in Flora North America (vol. 5 pt. 2) listed *G. scorzonerifolia* for NM, but not *G. paniculata*, leading me to recheck the specimen in question. The specimen is indeed *G. scorzonerifolia*, having clasping leaf blades and glandular pedicels and calyces.

Rumex stenophyllus Ledebour (Polygonaceae): Lincoln County: Corona Ranch of New Mexico State University, south headquarters, sandy ground, 6295 ft, 20 June 1998, A.C. Forbes 332 (NMCR).

Paronychia pulvinata A. Gray (Caryophyllaceae): This species was reported for NM from alpine slopes in Martin & Hutchins (1980. A Flora of New Mexico), but the recent treatment in FNA omits it from the state. To avoid confusion, I offer here two validating specimens; perhaps there are more at UNM: Mora County: 0.5 mi ese of Chimayoso Peak, alpine zone in rocky ground, 12040 ft, 13 July 1998, D. Atwood 24145 (NMC). Taos County: ca. 2 mi n of Wheeler Peak, 1/4 mi s of Frazer Mt, 11870 ft, 19 Aug 1980, R. Soreng 1459 (NMC).

— Jim McGrath [20 Robin Court, Edgewood, NM 87015]

Carex deweyana Schweinitz (Cyperaceae): Taos County: about 1.5 miles northwest of Santa Barbara Campground, Carson National Forest, NW /4 sec.36 , T22N, R12E, UTM: 0444109E, 3995287N, edge of 4-foot wide feeder stream to Rio Santa Barbara in partly shaded mixed conifer forest, with *Pseudotsuga menziesii, Abies concolor*, *Picea pungens*, *Ranunculus* sp. *Geum macrophyllum*, *Carex microptera*, *Viola* sp., deep black soil, 8600 feet (2620 m), June 24, 2004, Jim McGrath 596 (MICH, UNM). [Det. by A. Reznicek]

— Richard Spellenberg [New Mexico State University, MSC Box 3AF, Las Cruces, NM 88003]

Malacothrix stebbinsii W. H. Davis and P. H. Raven (Asteraceae): Catron County: Sheridan Gulch trail ca. 6 mi SE of Glenwood, 4 mi from Hwy 180, 21 May 1983, Soreng and Ward 2130b (NMC); Doña Ana County: NE portion of Organ Mts. at Aguirre Springs Recreation Area, Pine Tree Loop Trail, 29 Apr 2005, Spellenberg and Sweeney 13520 (NMC); Grant County: Little Hatchet Mts., 5.3 rd. mi. NW of Hachita by Hwy. 9, 24 Apr 1982, Worthington 8157 (NMC). [see article on p. 2 of this issue]

Melampodium longicorne A. Gray (Asteraceae): Grant County: North of Silver City along NM Hwy 35 near junction with NM Hwy 15 [near 33*02'28"N, 108*12'58"W; elev. ca. 5000 ft], along fencerow at Gray Feather's Lodge, 22 Aug 2003, W. W. Holland 10491 (NMC).

— David Bleakly [3813 Monroe NE, Albuquerque, NM 87110]

****Torilis arvensis*** (Hudson) Link (Umbelliferae): Eddy County: edge of Eagle Draw, downstream of the main city park in Artesia, 10 June 2005, David Bleakly 5188 (UNM).

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Miscellaneous

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Kelly Allred
The New Mexico Botanist
MSC Box 3-I
New Mexico State University
Las Cruces, NM 88003
or
Email: kallred@nmsu.edu

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Kelly Allred

Roots (or hyphae…?)

Olga Reifschneider (Biographies of Nevada Botanists, 1844-1963, publ. 1964) and Roger Peterson (our friend in Santa Fe) have helped bring to light this interesting connection to New Mexico botanical history —

William Andrew Archer (known as Andy) was born November 7, 1894, in Torreon, Mexico, where he lived until his parents returned to the United States to farm at Brazito, New Mexico. Brazito is about five miles south of Las Cruces. He attended New Mexico College of Agricultural & Mechanic Arts (now NMSU) before and after WWI, and his senior thesis of 1920 was "The Fungi of New Mexico." He continued his studies at the University of Michigan, receiving the Ph.D. in mycology in 1926. In 1934 he obtained a position with the U.S. National Arboretum, being curator of the herbarium from 1934 to 1959. Among other research accomplishments, he is well-known for his contributions toward a published manual of the flora of Nevada. He died in 1973.

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