NOTEWORTHY COLLECTIONS

ARIZONA

CRYPTANTHA GANDERI I.M. JOHNSTON (BORAGINACEAE).—Yuma Co., Cabeza Prieta National Wildlife Refuge, Pinta Sands East, dunes at edge of the lava flow, vicinity of 20°05′50″N, 113°27′W (Las Playas Quadrangle Arizona–Sonora, 7.5 minute series, provisional edition 1990), ca. 210 m, locally common spring ephemeral, sympatric with Cryptantha angustifolia, associated perennials Croton californicus, Hilaria rigida, Stillingia linearifolia, Tiquilia palmeri, and Triteleiopsis palmeri, Harlan and Telewski 90 (21 March 1992, ARIZ).

Previous knowledge. The Gran Desierto region in northwestern Sonora (Felger, Synopsis of the Vascular Plants of Northwestern Sonora, Mexico, Ecologica, 1993; Johnston, Studies in the Boraginaceae XIII, Journal of the Arnold Arboretum 20: 375–402, 1939), Baja California south to the vicinity of Pozo Alemán and El Barril (Wiggins, Flora of Baja California, 1980), and southeastern California in San Diego Co. (Munz, A flora of southern California, 1974).

Significance. First record in Arizona. Apparently this plant had been collected previously in Arizona. I. M. Johnston (in Kearney & Peebles, Arizona Flora, 1951) reported that "plants resembling C. barbigera but with a solitary, smooth, very acuminate nutlet 3 mm long were collected in the Tule desert, Yuma Co. (Darrow in 1941)." This could only refer to C. ganderi but we have not been able to locate the specimen. The present collection from the same, or approximately the same, area confirms the presence of this species in Arizona.

—RICHARD S. FELGER, Drylands Institute, 2509 N. Campbell #176, Tucson, AZ 85719; Annita Harlan, Ecology and Evolutionary Biology, University of Arizona, Tucson 85721; Victor W. Steinmann, Herbarium, University of Arizona, Tucson 85721; Frank W. Telewski, Beal Botanical Garden, 412 Olds Hall, Michigan State University, East Lansing, MI 48824.

CALIFORNIA

CLARKIA MOSQUINII E. SMALL SSP. MOSQUINII (ONAGRACEAE). — Butte Co., along 4.8 km of Dark Canyon Road between 0.5 and 5.3 km south of Big Bend Road, T21N R4E sect. 2, 11, 12, T22N, R4E, sect. 35, elev. 305-575 m. Plants were observed at 10 sites along the full 6.2 km of Dark Canyon Road (between Highway 70 and Lake Oroville) and collections made at 8 of those sites. All sites were steep rocky banks of the road cut through shale bedrock, although plants were usually the most robust in the soil at the base of the cut. The sites face W to S to SE and are mostly open exposures. Surrounding vegetation is principally a mixed conifer forest of Pinus sabiniana, P. ponderosa, Pseudotsuga menziesii, and Quercus chrysolepis; ridge-tops are often dominated by Arctostaphylos viscida, while the drainage bottoms have some Acer macrophyllum. Openings of annual grassland also occur on some southerly facing slopes. The few associates of C. mosquinii include Monardella sheltonii, Antirrhinum vexillo-calyculatum ssp. intermedium, and Streptanthus tortuosus var. suffrutescens. One species particularly common on these road-cut banks, Mimulus bifidus, was not found with C. mosquinii. Three other species of Clarkia were found along Dark Canyon Road: C. purpurea ssp. viminea was very common on the side of Dark Canyon Road opposite the cut-banks; it was rarely growing with C. mosquinii; C. unguiculata was collected at one site about 0.1 km S of the lowest C. mosquinii site; and C. concinna ssp. concinna was collected at one site 0.4 km south of the lowest C. mosquinii site. 7 May 1987, Janeway 2029 (CHSC, CAS); 1 June 1991, Janeway 3976 (CHSC), Janeway 3977 (CHSC, CAS), Janeway 3978 (CHSC, CAS, MO), Janeway 3979 (CHSC, CAS), Janeway 3980 (CHSC, LA), Janeway 3982 (CHSC, CAS), Janeway 3983 (CHSC, CAS), Janeway 3985 (CHSC, CAS); identifications by Harlan Lewis, March 1992. The following seed collections have been deposited with the long-term seed storage facility at Rancho Santa Ana Botanic Garden by Harlan Lewis: 5 June 1992, Janeway 4220, 4221; 12 June 1992, Janeway 4230, 4231.

Previous knowledge. This taxon has been known only from the 1959 type collection from "along California State Highway 40 alternate, 3.7 mi southwest of entrance to Plumas National Forest" (Mosquin 3335). Dark Canyon Road, formerly Highway 40 alternate, is thought to be the type locality. Several searches have been conducted during the past 25 years to relocate C. mosquinii ssp. mosquinii, including some by Ernst Small, but have not been successful (H. Lewis, Rare Plant Status Report, California Native Plant Society, 1977; Smith and Berg, Inventory of Rare and Endangered Vascular Plants of California, Fourth Edition, California Native Plant Society, Sacramento, 1988).

Significance. Clarkia mosquinii ssp. mosquinii is presently on List 1A (Smith and Berg, Plants presumed extinct in California, California Native Plant Society, 1988) and is noted as "Presumed Extinct" in Hickman (The Jepson Manual, University of California Press, Berkeley, 1993). These collections reestablish the taxon as extant. One caveat is that although Harlan Lewis is "convinced" that these specimens are indeed C. mosquinii ssp. mosquinii, he urges that a chromosome count be taken to further confirm the identification; this species is the only one in the genus with six pairs of chromosomes.

CLARKIA MOSQUINII E. SMALL SSP. XEROPHILA E. SMALL (ONAGRACEAE).—Butte Co.: NE of Oroville, N of the French Creek Road crossing of Peavine Creek, T22N R6E sect. 30, elev. 650 m, roadside of decomposing granite in area of Pinus ponderosa, Calocedrus decurrens, Quercus kelloggii, 11 July 1981, Schlising, Tarp & Banchero 4134 (CHSC); about 24 km NE of Oroville, about 3.2 km SE of intersection of the Oroville—Quincy Highway and Ponderosa Way, T20N R5E sect. 4, elev. 520 m, on dry, rocky, red soil along the road in region of foothill woodland, 26 June 1983, Ahart 4118 (CHSC); at the little building at the Ponderosa Dam, about 3.2 air km NE of Forbestown, T20N R6E sect. 33, elev. 335 m, on damp granite soil in the disturbed cutbank, mixed conifer forest, 8 June 1984, Ahart 4663 (CHSC). Identifications by Harlan Lewis, October 1992. Location and habitat information taken from the herbarium labels.

Previous knowledge. This taxon has been known only from the type collection (Small 178) and one other collection (Mosquin 3336), both from "along Highway, 0.2 mi west of Enterprise." This location was inundated by lake Oroville in 1968; the subspecies has not been reported since 1967 (Smith and Berg, 1988; Hickman 1993; citations in above Noteworthy Collection).

Significance. Clarkia mosquinii ssp. xerophila is presently on List 1A of Smith and Berg (1988) and is noted as "Presumed Extinct" in Hickman (1993). These collections reestablish the taxon as extant.

It was at the request of Vern Oswald that in October 1992 Harlan Lewis looked at all 58 collections of *Clarkia* section *Myxocarpa* at CHSC for misidentified specimens of *Clarkia mosquinii*. This resulted in the "discovery" of the three occurrences of *Clarkia mosquinii* ssp. *xerophila* reported above.

⁻LAWRENCE JANEWAY, Herbarium, Department of Biological Sciences, California State University, Chico 95929-0515.

Monardella douglassi Benth. var. venosa (Torrey) Jepson (Lamiaceae).— Butte Co., bottoms of canyons between Neal Road and Hamlin Canyon, ca. 8 km SE of Chico, 2.4 km E of Highway 99, T21N R2E sect. 14 at 84–90 m. The six small locations, containing from less than 10 to over 1000 plants each, are scattered within a 60 ha area in two separate but interconnected canyons. Most of the plants are on flat to gently sloping terrain, within 64 m of an intermittent stream channel in the annual grassland component of a foothill woodland community. The plants are found only in lenses of dark gray, deeply cracking clay within alluvium derived from the upslope Tuscan Mudflow rock outcrops. The entire canyon area supporting this taxon is actively grazed by cattle and sheep. Associated species: Geranium dissectum, Centaurea solstitialis, Navarretia nigelliformis, N. heterandra, Hesperolinon californicum, Vulpia spp., Evax caulescens, Trifolium hirtum, Brachypodium distachyon. 9 May 1992, Janeway and Castro 4162 (CHSC); 10 May 1992, Castro and Janeway 456 (CHSC); 16 May 1992, Janeway and Castro 4187 (CHSC, CAS); 19 May 1992, Castro and Jokerst 457 (CHSC, CAS, DAV, UC); identification confirmed by J. D. Jokerst.

Previous knowledge. The most recent collection of Monardella douglasii var. venosa was in 1935 from near Copperopolis in Tuolumne County (435 m) by J. A. Rutter (UC); the taxon had not been collected since. There are only four other historical collections: the type specimen collected in 1854 from "Plains of the Feather River, near Marysville" by Bigelow, and three others, from "Cherokee, Butte County" by Bidwell in 1879, from "Chico Valley" by Parry in 1882 (UC), and from "Chico" in 1883 (CAS) also by Parry (Taylor m.s. 1983, Flora Buttensis 4(1):35; label information verified by B. Ertter personal communication 1993, and B. Bartholomew personal communication 1993). A sixth historical collection in 1876 (UC), originally from the Lemmon Herbarium, gives an incorrect location of "Crafton, San Bernardino County" (annotation by J. Ewan 1934).

Significance. This distinctive taxon is presently on List 1A (Smith and Berg, Plants presumed extinct in California, California Native Plant Society, 1988). These collections reestablish the taxon as extant. These occurrences provide for habitat description; this information was omitted from labels on previous specimens, inhibiting productive search for this presumed extinct plant.

The entire area in which all six patches of *M. douglasii* var. *venosa* was found was burned in a wildfire on 25 Sept. 1992. Abundant seedlings were observed by the principal author approximately four weeks later, following two rainstorms. These seedlings showed only their two cotyledons; they were identified by smell and proximity to last season's *Monardella* skeletons.

-Barbara Castro and Lawrence Janeway, Herbarium, Department of Biological Sciences, California State University, Chico 95929-0515.

MEXICO

LILIUM PARRYI S. WATSON (LILIACEAE).—Sonora, Sierra de los Ajos, Arroyo Frijolito, vicinity of 30°57′N, 109°57′W (Carta Topografica, CETANAL, Cuquiarichi HI2B54, 1974), ca. 2100 m. One highly localized population of 48 individuals (stems); canyon bottom on edge of steep drop-off in dense shade of pine-oak woods with Acer grandidentatum, Abies concolor, Aralia racemosa, Smilacina racemosa, S. stellata, Habenaria limosa, Thalictrum fendleri, and Malaxis ehrenbergii. Fishbein 734, Felger, Garza, Haro, Malusa, and Turner (9 October 1992, ARIZ, MEXU, MO, RSA, TEX, UC). While standing in dim light in the late afternoon just prior to discovery of this population, Fishbein remarked "This looks like lemon lily habitat," and Felger answered "Like those behind you?"

Significance. First record for Mexico, the only member of the genus in Sonora.

Previously known from southern Arizona in the Huachuca and Santa Rita Mountains (S. Rutman, Handbook of Arizona's endangered, threatened, and candidate plants, U.S. Fish and Wildlife Service, Phoenix, AZ, 1992) and recently located in the Chiricahua Mountains (East Turkey Creek, 7400 ft, *Klay s.n.* (9 Jun 1992, ARIZ). Malusa, Warren & Gori, Population Studies of Sensitive Plants of the Coronado National Forest, Arizona, unpublished report, Arizona Nature Conservancy, Tucson, 1993), and also in southern California (Hickman, The Jepson Manual, University of California Press, Berkeley, 1993). Throughout its range this species is rare and narrowly restricted in distribution and in the U.S. has Category 2 status (a taxon for which the U.S. Fish and Wildlife Service has insufficient information to support a proposed rule to add the species to the threatened or endangered species list; Rutman 1992).

-RICHARD S. FELGER, Drylands Institute, 2509 N. Campbell #176, Tucson, AZ 85719 and Mark Fishbein, Ecology and Evolutionary Biology, University of Arizona, Tucson, AZ 85721.

RUMEX ORTHONEURUS RECH. F. (POLYGONACEAE). — Sonora, Sierra de los Ajos: Hoya del Packard, vicinity of 30°56′N, 109°58′W (Carta Topografica, CETANAL, Cuquiarichi HI2B54, 1974), ca. 2200 m. Five individuals observed in a narrow, steep canyon bottom with tall Alnus oblongifolia, Pseudotsuga menziesii, Acer grandidentatum, Juglans major, Symphoricarpos oreophilus, Plantago major. Felger 92-908, Fishbein, Garza, & Haro (10 October 1992, ARIZ, MEXU, UC, TEX). Arroyo Frijolito, vicinity of 30°56′N, 109°57′30″W, ca. 2450 m. Roughly 30 individuals observed in a dry canyon bottom below a seep with Pinus strobiformis, Juniperus deppeana, Quercus gambelli, Rhamnus betulifolia, Acer grandidentatum, Euphorbia alta. Fishbein 698, Felger, Malusa, Turner, Garza, & Haro (9 October 1992, ARIZ, MEXU).

Significance. First record for Mexico. Previously known only from low gradient streams at high elevations in southeastern Arizona where it is considered a Category 1 plant (a taxon for which the U.S. Fish and Wildlife Service has sufficient information on vulnerability and threats to support a proposal to list it as threatened or endangered). Seeds from Arizona plants were grown without difficulty in containers out-of-doors at the Arizona–Sonora Desert Museum in Tucson (Mark A. Dimmitt personal communication, 1993); these plants were successfully established in suitable habitats in the Chiricahua Mountains in southern Arizona (Malusa, Warren & Gori, Populations Studies of Sensitive Plants of the Coronado National Forest, Arizona, unpublished report, Arizona Nature Conservancy, Tucson, 1993).

—Mark Fishbein, Department of Ecology and Evolutionary Biology, University of Arizona, Tucson 85721; Richard S. Felger, Drylands Institute, 2509 N. Campbell #176, Tucson, AZ 85719 and James Malusa, Arizona Nature Conservancy, 300 E. University Boulevard, Suite 230, Tucson, AZ 85705.

MONTANA

HALIMOLOBOS PERPLEXA (HEND.) ROLLINS (BRASSICACEAE).—Ravalli Co., Bitterroot Mountains, upper West Fork Bitterroot River drainage, ca. 1.6 k S of the confluence of Sheep Creek and the West Fork, on a steep SE-facing slope in loose, granitic gravelly loam soils, in a shrub-dominated community with Ceanothus velutinus, Physocarpus malvaceus, Prunus virginiana, Salix scouleriana, and Symphoricarpos albus, T4S R22W sect. 9 NW¹/₄, 1865 m, 24 Jun 1992, J. S. Shelly 1657 (MONT); same location, on a steep south-facing slope, with Artemisia tridentata, Agropyron spicatum, Festuca idahoensis, Achillea millefolium, Eriogonum umbellatum, Balsa-

morhiza sagittata, Koeleria cristata, Penstemon albertinus, Carex geyeri, and Gilia tenerrima, 27 Jun 1992, J. S. Shelly 1660 (GH, ID, MONT, MONTU, MRC).

Significance. First records for Montana. This population represents a range extension for var. lemhiensis Hitchc., previously known only from the Salmon River drainage in Custer, Lemhi, and Valley cos., Idaho (Idaho Conservation Data Center, Boise). The plants are common in three subpopulations, and spread by long, thin rhizomes that are deep-seated in the loose soils.

Haplopappus aberrans (A. Nels.) Hall (Asteraceae).—Ravalli Co., Bitterroot Mountains, in rock crevices and on short sandy and gravelly slopes, below and above cliffs, with Sedum stenopetalum and Heuchera grossulariifolia, T1N R22W sect. 14, 1463 m, 27 Aug 1989, K. Lackschewitz 11618, W. Albert, and J. Hoy (MONTU); Ravalli Co., West Fork Bitterroot River drainage, east of bitterroot National Forest Rd. 91, ca. 2 km N of Painted Rocks Lake Dam, ca. 32 air km SSW of Darby, ca. 80–100 plants growing in cracks at base of dry granite cliff, Pinus ponderosa/Pseudotsuga menziesii forest, with Cercocarpus ledifolius, Penstemon diphyllus, P. fruticosus, Campanula rotundifolia, Woodsia scopulina, and Ribes cereum, T1S R22W 23 center, 1463 m, 30 Jul 1990, J. S. Shelly 1620, K. Lackschewitz, W. Albert, and K. McBride (MONT, MRC).

Significance. First records for Montana. Previously known only from central Idaho.

LIPARIS LOESELII (L.) L. C. RICH. (ORCHIDACEAE). - Lake Co., all in the northern Swan River valley: "Porcupine Fen," 30 m W of USFS road 9719, 9.7 km SW of town of Swan lake, very local and scarce, saturated peatland (open patterned fen) dominated by Carex interior, Carex rostrata, Eleocharis tenuis and mosses, with shrub islands comprising Betula glandulosa, 2% slope, NE aspect, T24N R18W sect. 14 NW¼ NE¼, 957 m, 11 Jun 1992, M. Mantas 490 (ID, MONTU); "Swan River Fen," NE of Flathead N.F. Rd. 9719, ca. 0.56 air km S of mouth of Porcupine Creek, 7.25 air km SSW of Swan Lake (town), in mossy, saturated peatland, with Betula glandulosa, Salix candida, Carex lasiocarpa, and Picea engelmannii, T24N R18W sect. 2 SW1/4, 945 m, 13 Jun 1990, J. S. Shelly 1615 (MONTU); same location as Shelly 1615, ca. 100-125 plants, 18 Jun 1992, J. S. Shelly 1651 and S. Chadde (MONT); "Lost Creek Fen," ca. 0.4 air km E of St. Hwy. 83, ca. 4.8 km S of Swan Lake (town), 110 plants counted, in a carr with Betula glandulosa, Carex lasiocarpa, C. interior, C. cusickii, C. capillaris, C. aurea, C. dioica, Eriophorum viridicarinatum, Eleocharis tenuis, Picea engelmannii, Rhamnus alnifolia, and Epipactis gigantea, T25N R18W 36 SE¼ NW¼, 966 m, 19 Jun 1992, J. S. Shelly 1655 and S. Chadde (MRC); "Plum Creek Fen," west side of Swan River valley, ca. 0.16 km W of Flathead N.F. Rd. 888, ca. 1.6 km S of junction with Rd. 9719, ca. 1.6 air km E of Woodward Point, ca. 16.1 air km S of Swan Lake (town), 76 plants counted, in moist to saturated peat of a well-developed fen, with Betula glandulosa, Carex lasiocarpa, Eleocharis tenuis, Menyanthes trifoliata, Picea engelmannii, and Epipactis gigantea, T23N R18W sect. 1 W½ NW¼, 1015 m, 14 Jul 1992, J. S. Shelly 1670 and S. Chadde (MONT); "Point Pleasant Fen," E side of St. Hwy. 83 across from Point Pleasant campground, 30 plants counted, in ecotone between open fen and adjacent forest, with Carex lasiocarpa, C. flava, Lobelia kalmii, Scirpus acutus, Betula glandulosa, Juniperus communis, and Picea engelmannii, T24N R17W sect. 19, 979 m, 14 Jul 1992, J. S. Shelly 1679 and S. Chadde (MONT).

Significance. First records for Montana. The only other known stations in the Pacific northwestern United States are in Klickitat and San Juan cos., Washington, where it is considered endangered (Endangered, Threatened and Sensitive Vascular Plants of Washington, Washington National Heritage Program, 1990). Otherwise known from Nova Scotia to Alabama, west sporadically to Saskatchewan, continental Northwest Territories and British Columbia (Straley et al., The Rare Vascular Plants of British Columbia, 1985), North Dakota and Iowa, and in Europe. All observed Montana

populations are small. The plants typically occur in semi-shaded carrs and fen-forest ecotones, or in full sun along water tracks flowing across the fens.

LYCOPODIUM INUNDATUM L. (LYCOPODIACEAE).—Missoula Co., Swan River valley, 0.56 air km W of Kraft Creek, 0.64 air km N of Flathead N.F. Rd. 9590, ca. 8.85 air km SSW of Condon, ca. 300–400 stems in scattered small patches, in organic crust of a basin fen, with Carex lasiocarpa, C. Buxbaumii, Drosera anglica, and Dulichium arundinaceum, T20N R17W sect. 28 NE¼ SE¼, 1253 m, 27 Jul 1988, J. S. Shelly 1503 (MONTU, OSC).

Significance. Second report for Montana. Previously reported for "n.w. MT" (Hitchcock et al., Vascular Plants of the PNW, Part 1, 1969), but the basis for this is unknown. Recent floristic surveys of fens in northwestern Montana have not revealed any additional stations in the state. Interruptedly circumboreal, S in North America to NW California, Idaho, NW Montana, Minnesota, New York, and Virginia, and to Florida and Texas. We thank Klaus Lackschewitz for providing label data and encouraging publication of these records.

-J. Stephen Shelly, U.S. Forest Service/Montana Natural Heritage Program, Wildlife, Fisheries and Botany Unit, P.O. Box 7669, Missoula, MT 59807; MARIA MANTAS, Flathead National Forest, 1935 Third Avenue East, Kalispell, MT 59901.

New Mexico

CRYPTANTHA GRACILIS OSTERH. (BORAGINACEAE).—San Juan Co., Animas River Breaks between Farmington and Aztec, T30N, R12W, S34, elev. 1740 m, 10 May 1982, Fletcher 5941A (UNM); 13 km NW of Aztec, T31N, R12W, sect. 16, on sandy clay beneath Juniperus, elev. 1800 m, 17 May 1983, Sivinski 1078 (NMC, UNM); 26 km NE of Shiprock, T32N, R16W, sect. 19, common on sandy clay under Juniperus, elev. 1720 m, 17 May 1983, Sivinski 1090 (UNM).

Significance. This species ranges from Oregon to northern Arizona. These are the first records for NM which represent a minor southeastern range extension from San Juan Co., Utah.

CRYPTANTHA RECURVATA COVILLE (BORAGINACEAE).—San Juan Co., Fruitland, T30, R15W, S24, shale hills, elev. 1645 m, 25 April 1979, Marley 1797 (UNM); 4 km S of Chaco River on E side of the Hogback, T29N, R16W, sect. 28, on sandy soil, 29 April 1983, Knight 2467 (UNM); 26 km NE of Shiprock, T32N, R16W, sect. 19, common on sandy lenses in sandstone outcrops, elev. 1720 m, 17 May 1983 Sivinski 1091 (UNM).

Significance. This species ranges from Oregon to southern California to western Colorado. These are the first records for NM which represent a minor southeastern range extension from San Juan Co., Utah.

EPIPACTIS HELLEBORINE (L.) CRANTZ. (ORCHIDACEAE). — Bernalillo Co., Rio Grande River at the City of Albuquerque, Rio Grande Nature Center, occasional in dry understory leaf litter beneath a riparian, deciduous forest of *Populus fremontii* var. wislizenii Wats. and Elaeagnus angustifolia L., 26 June 1990, Sivinski & Cully 1510 (UNM).

Significance. An introduced European species that is becoming well established in the eastern forests and western coastal woodlands of North America. This is the first record for NM and the arid southwestern states.

HELIANTHUS PARADOXUS HEISER (ASTERACEAE).—Chaves Co., Bitter Lake National Wildlife Refuge, 8 km NE of Roswell, T10S, R25E, sects 4, 9, 10, 15, 16, 20, 21, 28 and 29, common along the riparian edges of ponds within the refuge, elev. 1060 m, 11 September 1991, Sivinski 1813 (UNM); Guadalupe Co., Santa Rosa, T8N, R21E, Sections 2, 10, 11, 12 and 14, common on numerous springs, seeps and pond riparian areas, elev. 1390 m, 25 September 1992, Sivinski 2066 (NMC, UNM).

Significance. Martin and Hutchins did not include this species in A Flora of New Mexico (vol. 2, 1980) even though Heiser (Rhodora 60:272–274, 1958) identified an 1851, Valencia Co., NM specimen as belonging to this species. Its New mexico residency was firmly established when it was discovered near Dexter in Chaves Co. (Seiler et al., SW Natur. 26:431, 1981). This plant has recently been considered a category 1 candidate for listing under the federal Endangered Species Act. These new locations greatly improve its probability of survival since the Bitter Lake location is within a national wildlife refuge and many of the plants at Santa Rosa occur in municipal fishing parks. The range of this sunflower in the Pecos River drainage is also extended 140 km to the north.

OXYTROPIS DEFLEXA (PALL.) DC. VAR. DEFLEXA (FABACEAE).—Rio Arriba Co., Cañon de los Alamos, 7 km N of La Madera, T26N, R8E, sect. 25, SW¼, canyon bottom in ponderosa pine forest, elev. 2280 m, 26 July 1991, Sivinski & Lightfoot 1769 (NMC); same location, 30 July 1992, Sivinski 1929 (UNM). Determination made by Dr. Richard Spellenberg.

Significance. Martin and Hutchins include this variation in A Flora of New Mexico (vol. 1, 1980) as "probably" in the northern part of the state with no certain records. This is the first vouchered record of this plant for NM and a minor range extension from the mountains of southern Colorado.

PHACELIA CEPHALOTES A. GRAY (HYDROPHYLLACEAE).—McKinley Co., Zuni Mts., Six-mile Canyon, T14S, R15W, sect. 7, SW¹/₄, occasional on dark shale with *Juniperus* and *Sarcobatus*, elev. 2180 m, 31 May 1992, *Sivinski 1871* (NMC, UNM).

Significance. First record for NM and a minor range extension to the east from adjacent Apache Co., Arizona.

PLANTAGO ELONGATA PURSH SUBSP. ELONGATA (PLANTAGINACEAE).—San Juan Co., 1 km E of the Los Pinos Arm of Navajo Reservoir, T32N, R7W, sect. 20, NW¼, rare on sodic, sandy shale outcrops with strong smell of selenium, piñon-juniper woodland, elev. 1900 m, 9 May 1991, Sivinski & Lightfoot 1658 (UNM).

Significance. First record for NM and a southern range extension of 200 km from the nearest published location in western Colorado. This collection confirms Bassett's (Canadian Journal of Botany 44:468–469, 1966) expectation that this widespread species would be found in NM.

-ROBERT C. SIVINSKI, NM Energy, Minerals and Natural Resources Department, Forestry and Resources Conservation Division, P.O. Box 1948, Santa Fe, NM 87504.



Felger, Richard Stephen et al. 1993. "NOTEWORTHY COLLECTIONS." *Madroño;* a West American journal of botany 40, 268–274.

View This Item Online: https://www.biodiversitylibrary.org/item/185594

Permalink: https://www.biodiversitylibrary.org/partpdf/171208

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Biodiversity Heritage Library

Copyright & Reuse

Copyright Status: In Copyright. Digitized with the permission of the rights holder

Rights Holder: California Botanical Society

License: http://creativecommons.org/licenses/by-nc/3.0/Rights: https://www.biodiversitylibrary.org/permissions/

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.