

of the Santa Clara Valley Water District for calling my attention the Coyote Creek population, taking me on a tour of their revegetation site, and providing a lead to some of the references cited; and an anonymous reviewer for helpful comments on the manuscript.

NOTEWORTHY COLLECTIONS

CALIFORNIA

EUPHORBIA DENDROIDES L. (EUPHORBIACEAE).—Los Angeles Co., Angeles National Forest, Big Santa Anita Canyon, alt. 1000 ft., 16 Apr 1988, *Adelina Munoz* 87 (UCR); foothills above Pasadena, side canyon of Eaton Wash along New York Drive, 0.5 km N of Sierra Madre Blvd., alt. 300 m, 20 Apr 1996, *D. Koutnik s.n.* (UCR, and to be distributed).

Previous knowledge. Native to the Mediterranean basin and cultivated in California as an ornamental. Previously reported escaping in Santa Barbara Co. (C. F. Smith, *A Flora of Santa Barbara Region, California*, Santa Barbara Mus. of Nat. Hist., 1976), with specimens taken there at least as early as 1950, but not reported by Munz (*A California Flora*, 1959; *A Flora of Southern California*, 1974) or Koutnik (*in* J. C. Hickman, ed., *The Jepson Manual*, 1993). Also previously reported as “a well-established stand” in the foothills of the San Gabriel Mtns. near Pasadena (J. R. Brown, *Cactus and Succulent Society of America Journal*, 34:51–52, 1962). This record, which has been generally overlooked, was not documented by specimens although good photographs were provided.

Significance. First specimens from naturalized plants in Los Angeles County. This note serves to further document the need for addition of this species to state and regional floras.

EUPHORBIA ESULA L. (EUPHORBIACEAE).—Los Angeles Co., Malibu, coastal sage scrub near Malibu Creek, ca. 1 km N of the Pacific Coast Highway, 8 Oct 1992, *Scott White* 878 (UCR).

Previous knowledge. Native of Europe, North Africa and western central Asia, widely introduced into North America, and previously reported from northern California, with all known infestations from north of San Francisco (G. D. Barbe, *Noxious Weeds of California*, Distribution Maps, CA Dept. of Food and Agr., 1990, unpub. report; Koutnik, *in* Hickman 1993).

Significance. First record for Los Angeles County and southern California. A noxious weed in need of eradication.

EUPHORBIA HIRTA L. (EUPHORBIACEAE).—Riverside Co., Palm Desert, weed in lawns along a commercial strip on Hwy 111 between Hwy 74 and Sage Lane, 33°44'N, 116°22'W, alt. 45 m, 8 Nov 1994, *A. C. Sanders* 15864 (UCR, and to be distributed); Palm Springs, weed in lawns at a shopping center at the SE corner of Racquet Club Dr. and Palm Canyon Dr., T4S R4E center S3, alt. 200 m, 17 Mar 1996, *A. C. Sanders & G. Helmkamp* 17979 (UCR, and to be distributed); Rancho Mirage, weed in lawn at edge of Mission Hills Country Club, intersection of Dinah Shore Dr. and Duval Dr., T4S R5E NW/4 S26, alt. 100 m, 17 Mar 1996, *A. C. Sanders & G. Helmkamp* 17992 (UCR, and to be distributed).

Previous knowledge. A widespread weed in tropical America, and throughout the tropics, also occurs in Arizona, Texas and Florida.

Significance. First records for California. This species appears to have become a fairly common lawn weed in the Coachella Valley, and might be expected to appear elsewhere in southern California. It should certainly be sought in the Imperial and Borrego Valleys, which are closer to the probable Mexican source area and hence most likely already have established infestations.

This species would be placed in the genus *Chamaesyce* by Koutnik (*in* Hickman 1993), but *Euphorbia* without *Chamaesyce* (and *Pedilanthus*) is paraphyletic, making *Chamaesyce* unacceptable at generic rank if classification is to be based on phylogeny. We retain the more conservative and familiar classification.

The plants reported key to *Chamaesyce opthalmica* (Pers.) Burch [*Euphorbia o.* Pers.] in the treatment of Burch (Ann. Missouri Bot. Gard. 53: 90–99, 1966), but this taxon is very doubtfully a distinct species from *E. hirta* and has been reduced to a variety of that species (e.g., A. C. Allen & B. E. Irgang, Tribe Euphorbieae, *in* Fl. Ilustrada do Rio Grande do Sol., Fasc. XI, Bol. Inst. Cent. Biosciencias [Brasil], ser. Botanica 34 (4): 1–97, 1975). If treated as a variety of *E. hirta*, it is correctly called *E. h.* var. *procumbens* (DC.) N. E. Br., not *E. h.* var. *opthalmica* (Pers.) Allen & Irgang. We are uncertain whether variety *procumbens* is worthy of recognition, but note that all our collections are unambiguously referable to it.

EUPHORBIA NUTANS Lag. (EUPHORBIACEAE).—Riverside Co., Palm Desert, weed in landscaping along Hwy 111 between Hwy 74 and Sage Lane, 33°44'N, 116°22'W, alt. 45 m, 8 Nov 1994, A. C. Sanders 15863 (UCR); North Palm Springs (Garnet), weed in landscaping at I-10 and Indian Ave, T3S R4E SE/4 S15, alt. 250 m, 17 Mar 1996, A. C. Sanders & G. Helmkamp 17976 (UCR, and to be distributed).

Previous knowledge. Introduced from the southeastern U.S., Texas, Mexico, or South America. Uncommon and scattered on the coastal slope of southern California and north to the Sacramento Valley.

Significance. First records from the Sonoran Desert region of California and for Riverside County for this uncommon weed. This plant is called *Chamaesyce nutans* (Lag.) Small by Koutnik (*in* Hickman 1993).

EUPHORBIA OBLONGATA Griseb. (EUPHORBIACEAE).—Alameda Co., Strawberry Canyon fire trail, E of U. C. Berkeley, Centennial Dr. and Grizzly Peak Blvd, alt. 1200 ft., locally abundant, 26 Jun 1988, B. Ertter 7648 (DAV, RSA); Amador Co., Red Corral Road, 0.15 km W of road to P.G. & E. Powerhouse #7, N Fork of Mokelumne River, T7N R13E S33, abundant on south-facing slope, alt. 2500 ft., 1 Jun 1970, T. C. Fuller 19674 (RSA); Calaveras Co., Jurs Road, 2.5 km east and south of Westpoint, Middle Fork of the Mokelumne River, T6N R13E S12, scattered patches along drainageway, alt. 3000 ft., 1 June 1970, T. C. Fuller 19675 (RSA); Contra Costa Co., Martinez, along Franklin Creek in John Muir National Historic Site, 23 Apr 1981, W. E. Davis s.n. (DAV, RSA); Hwy 4, 5 km west of Martinez, 30 Jul 1958, T. C. Fuller s.n. (DAV); Alhambra Valley, ca. 6.6 km W of Martinez, 25 Jun 1959, T. C. Fuller 2679 (RSA); near Jewel Lake, C. L. Tilden Regional Park, common but local, alt. 500–600 ft., 28 Apr. 1979, R. A. Norris 3885 (RSA); Marin Co., Ross, spontaneous along Lagunitas Road, 25 Apr 1974, J. T. Howell 50327 (DAV); Napa Co., Hwy 29 south of Calistoga, T8S R7W S1, 1 May 1972, R. Lawley s.n. (DAV); San Joaquin Co., N side of Hwy 4, 1 km W of Woodsbro Rd., 4 mi. W of Stockton, 29 Sep 1958, M. Switzenberg s.n. (RSA); Santa Clara Co., Palo Alto, Chaucer Ave. on San Mateo Co. line, abundant, 9 Jun 1966, R. Thorne & P. Raven 86565 (RSA); Sonoma Co., Hwy

116, 7 km south of El Verano, T5N R6W S25, 31 May 1985, *T. C. Fuller 20430* (DAV); Yolo Co., Davis, a weed in a vacant lot in town, locally well established, ca. 1980, *D. Koutnik s.n.* (DAV, but specimen not currently available).

Previous knowledge. Native to the Balkans and Turkey. First reported in California from Sacramento County (P. Munz, *Aliso* 7 (1): 66, 1969). It was later reported from at least 20 counties from San Luis Obispo to Shasta via dots on a range map (Barbe 1990), but that report was not widely distributed and has escaped general notice. Koutnik (1993) reported it from "GV" and "SnFrB", but the constraints of the Jepson format may disguise the extent of the infestation.

Significance. First specimen records for Alameda, Amador, Calaveras, Contra Costa, Marin, Napa, San Joaquin, Santa Clara, Sonoma, and Yolo counties. This species has been present in California for about 40 years and appears well established in much of the northern half of the state. Documentation for additional areas would be very desirable.

EUPHORBIA REVOLUTA Engelm. (EUPHORBIACEAE).—Riverside Co., Santa Rosa Mtns., Deep Canyon below Bighorn Overlook along Hwy 74, 3600 ft., 15 Oct 1976, *J. Zabriskie 944* (UCR); San Diego Co., Anza-Borrego Desert State Park, north slope of Whale Peak, 10 km north of Agua Caliente Springs, T13S R6E S13, 4600 ft., 2 Sep 1982, *A. C. Sanders & F. C. Vasek 2916* (UCR).

Previous knowledge. Eastern Mojave Desert of San Bernardino Co. in California and through Arizona, New Mexico, Colorado, western Texas, and south to Chihuahua, Mexico.

Significance. Not reported for the Peninsular Range or Riverside or San Diego counties in any of the major floras [Munz 1959, 1974; Koutnik (*in* Hickman 1993)], but the Riverside Co. occurrence was noted in a species list in an appendix by Zabriskie (Plants of Deep Canyon and the Central Coachella Valley, California, Philip L. Boyd Deep Canyon Research Center, 1979), but that report seems to have escaped wide notice. Not reported for San Diego Co. by Beauchamp (A Flora of San Diego County, California, Sweetwater River Press, 1986). A range extension of ca. 200 km SW from the eastern Mojave Desert. This plant is called *Chamaesyce revoluta* (Engelm.) Small by Koutnik (*in* Hickman 1993).

EUPHORBIA TERRACINA L. (EUPHORBIACEAE).—Los Angeles Co., El Segundo Dunes, W of Los Angeles Intl. Airport, 33°56'N, 118°26'W, 100 ft., 4 Dec 1987, *A. C. Sanders 7584* (RSA, UCR); same location, 18 May 1988, *A. C. Sanders 7832* (RSA, UCR); Santa Monica Mtns., Corral Canyon Road about 0.5 km N of Pacific Coast Highway, at crossing of Solstice Canyon, alt. 10 m, locally common on roadside and along stream, 14 Mar 1996, *D. Koutnik s.n.* (UCR, & to be distributed); Marina Del Rey, disturbed N-facing slope above Ballona Creek, locally common (100–200 plants) over an area of ca. 0.2 ha, 33°58'N, 118°26'W, alt. 100 ft., 18 Mar 1996, *Scott D. White 3836* (UCR, & to be distributed).

Previous knowledge. Native to the Mediterranean region, eastern Europe and the Arabian peninsula.

Significance. First records for California; apparently reported from the U.S. only by Kartesz (A Synonymized Flora of the United States, Canada and Greenland, Timber Press, 1994), but on what basis and from where are unknown to us. This species has been at the Solstice Canyon locality since at least 1987 and was common and well established at that time, suggesting it had been present for a number of years. The species also occurs at Malibu Creek State Park (Suzanne Goode, pers. com., 1996).

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versity of California, Riverside, CA 92521; DARYL KOUTNIK, Los Angeles County Planning Department, 320 W. Temple St., Los Angeles, CA 90012.

SONORA

METASTELMA CALIFORNICUM Benth. (ASCLEPIADACEAE).—Perennial vine with white flowers on shrub in sparse coastal thornscrub, Las Bocas on the Gulf of California, ca. 60 km (by air) S of Navojoa, Municipio de Huatabampo, 26°35'30"N 109°20'30"W, near sea level, *Van Devender* 92-121, *S. L. Friedman*, *S. A. Meyer* (1 Feb 1992, ARIZ, ARK), det. M. E. Fishbein.

Previous knowledge. Punta Prieta to the Cape Region in Baja California.

Significance. First Sonoran record for a Baja California species.

LOBELIA ENDLICHII (F. Wimmer) Ayers (CAMPANULACEAE).—Solitary annual in soil in hollow tree near stream, flowers bluish, Arroyo Los Pilares, ca. 23 km E of Yécora, 26 km W of Maycoba on México 16, Municipio de Yécora, 28°22'N, 108°47'W, 1300 m, *Van Devender* 95-478, *Reina G.* (6 May 1996, ARIZ), det. S. L. Friedman.

Previous knowledge. East of continental divide in Sierra Madre Occidental in SW Chihuahua (T. J. Ayers, *Systematic Botany* 15:296–327, 1990).

Significance. First Sonoran record.

ACOURTIA DIERINGERI R. L. Cabrera (COMPOSITAE).—Solitary herbaceous perennial, Cañada la Ventana, SE of Yécora on México 16, Municipio de Yécora, 28°21'45"N, 108°54'W, 1600 m, *Van Devender* 95-851, *Reina G.* (7 Sep 1995, TEX); uncommon 1.0 m tall herbaceous perennial, Arroyo Hondo, 11.5 km E of El Kípor on México 16, Municipio de Yécora, 28°26'30"N, 108°32'30"W, 1460 m, *Van Devender* 96-592, *Reina G.*, *G. Ferguson*, *L. Coyote* (11 Sep 1996, ARIZ, TEX), det. B. L. Turner.

Previous knowledge. Known only from the type locality in western Chihuahua: 20 km N of Basaseachic-Yepáchic road, 2150 m, *Cabrera* 628, *Dieringer* (23 Aug 1988, ENCB, GH, MEXU, TEX; L. Cabrera R. *Sida* 13:419–421, 1989).

Significance. First Sonoran records.

CONYZA APURENSIS Kunth (COMPOSITAE).—Common annual on disturbed roadside, Yécora, Municipio de Yécora, 28°22'25"N, 108°55'30"W, 1540 m, *Van Devender* 95-723, *Reina G.*, *D. A. Yetman*, *M. E. Fishbein* (6 Sep 1995, ARIZ, TEX, UCR), det. B. L. Turner.

Previous knowledge. Throughout the American tropics from the West Indies and South America north to Oaxaca, Guerrero and Michoacán on the Pacific slopes of México.

Significance. First Sonoran record.

LEIBNITZIA OCCIMADRENSIS Nesom (COMPOSITAE).—Common herbaceous perennial in pine-oak forest, 5.2 km W of Yécora on México 16, Municipio de Yécora, 28°21'48"N 108°59'12"W, 1720 m, *Van Devender* 96-85, *Reina*, *S. L. Friedman*, *W. Trauba* (11 Mar 1996, ARIZ, MEXU, TEX, det. B. L. Turner); 2 km SW of La Lobera, Municipio de Alamos, 27°16.3'N 108°37.4'W, 1450 m, *P. S. Martin s.n.*, *D. A. Yetman* (15 Mar 1992, ARIZ, det. R. K. Van Devender); Barranca Huicochic, bet. Huicochic and Sagaribo, Municipio de Alamos, 27°19'–19.5'N 108°39'W, 1300–1600 m, *P. S. Martin s.n.*, *G. Ferguson*, *V. W. Steinmann*, *D. A. Yetman* (16–18 Mar 1992, ARIZ, det. R. K. Van Devender); shallow canyon bottom in pine-oak woods

below Sagaribo, Municipio de Alamos, 27°20'N 108°39'W, 1600 m, *M. E. Fishbein* 153, *D. A. Yetman* (17 Mar 1992, ARIZ), det. R. K. Van Devender.

Previous knowledge. In the Sierra Madre Occidental in Chihuahua and Sinaloa (G. L. Nesom, *Brittonia* 35:126–139, 183).

Significance. First Sonoran records.

MELAMPODIUM SERICEUM Lag. (COMPOSITAE).—Abundant annual, Yécora, Municipio de Yécora, 28°22'25"N, 108°55'30"W, 1540 m, *Van Devender* 95–732, *Reina G.*, *D. A. Yetman*, *M. E. Fishbein* (6 Sep 1995, ARIZ, TEX, UCR), det. B. L. Turner.

Previous knowledge. Pine-oak forests from El Salvador and Guatemala north to Central México and Chihuahua (T. F. Steussy, *Rhodora* 74:1–219, 1972).

Significance. First Sonoran record.

SENECIO RIOMAYENSIS B. L. Turner (COMPOSITAE).—Very common annual on steep, loose rocky slope in pine-oak forest, Ciénega de Camilo, 8.0 km E of El Kípor on México 16, Municipio de Yécora, 28°26'N 108°34'W, 1500 m, *Van Devender* 96–102, *S. L. Friedman*, *Reina G.* 13 Mar 1996, ARIZ, ASU, MEXU, RSA, TEX, UCR, USON), det. B. L. Turner.

Previous knowledge. Known only from the type locality in the Sierra Madre of eastern Sonora: Canyon de López, W of Mesa de Abajo, *P. S. Martin s.n.*, *G. Ferguson*, *K. Moore* (B. L. Turner, *Phytologia* 74:382–384, 1993).

Significance. Second collection for species.

IPOMOEA MADRENSIS S. Watson (CONVOLVULACEAE).—Herbaceous perennial from tuber in pine-oak forest, summit of Mesa Del Campanero between Yécora and Bermúdez (Chihuahua), Municipio de Yécora, 28°20'N, 109°02'W, 2120 m, *R. M. Turner* 85–30, *P. S. Martin* (1 Aug 1985, ARIZ); solitary herbaceous perennial in oak woodland along Arroyo El Kípor from El Kípor E to Tierra Panda (Las Taunas), Cordón Las Taunas, Municipio de Yécora, 28°24'N, 108°33'30"W, 1720 m, *Van Devender* 95–961, *Reina G.* (10 Sep 1995, FAU), det. D. F. Austin; rare herbaceous perennial in pine-oak forest, 6.6 km W of Yécora on México 16, Municipio de Yécora, 28°21'42"N, 108°59'06"W, 1760 m, *Reina G.*, *Van Devender*, *Búrquez M.*, *G. Ferguson*, *L. Varela* (5 Sep 1996, ARIZ); common herbaceous vine from underground bulb in pine-oak forest, Mesa del Campanero, Arroyo Largo, upper tributary of Barranca El Salto, Municipio de Yécora, 28°21'18"N, 109°01'48"W, 2000 m, *Van Devender* 96–397, *Reina G.*, *Búrquez M.*, *J. T. Columbus*, *G. Ferguson*, *J. F. Wiens* (6 Sep 1996, ARIZ, MEXU, RSA).

Previous knowledge. Michoacán, México, Nayarit, Zacatecas, and Chihuahua.

Significance. First Sonoran records.

CYCLANTHERA MINIMA (S. Watson) D. Kearns & C. E. Jones (CUCURBITACEAE).—Occasional delicate vine on muddy bank in pine-oak forest, Mesa Del Campanero, Arroyo Largo, upper tributary of Barranca El Salto, Municipio de Yécora, 28°21'30"N, 109°02'W, 2075 m, *M. E. Fishbein* 2591, *S. McMahon*, *D. A. Yetman* (9 Sep 1995, ARIZ); solitary annual vine in oak woodland along Arroyo El Kípor from El Kípor E to Tierra Panda (Las Taunas), Cordón Las Taunas, Municipio de Yécora, 28°24'N, 108°33'30–35"W, 1720 m, *Van Devender* 95–962, *Reina G.* (10 Sep 1995, ARIZ, det. M. E. Fishbein); uncommon annual vine in shady canyon in pine-oak forest, Puerto de la Cruz, north base of Mesa del Campanero, Municipio de Yécora, 28°22'37"N, 109°02'W, 1900 m, *Reina G.* 96–490, *Van Devender*, *G. Ferguson*, *J. T. Columbus*, *J. T. Porter* (8 Sep 1996, ARIZ, MEXU, MO, NY, UCR).

Previous knowledge. Chihuahua, Sinaloa (D. M. Kearns and C. E. Jones, Madroño 39:301–303, 1992).

Significance. First Sonoran records.

RHYNCHOSPORA CONTRACTA (Nees) J. Raynal (CYPERACEAE).—Locally common annual in moist soil on open slope, Las Piedras Canyon, northeastern Sierra de Alamos, 3.2 km (by air) S of Alamos, tropical deciduous forest, Municipio de Alamos, 26°59'20"N, 108°56'45"W, 550 m, *Van Devender 95-1141*, *Reina G.*, (3 Oct 1995, ARIZ, MEXU, RSA), det. E. Roalson.

Previous knowledge. SE US; West Indies; from South America north to Veracruz and Nayarit, México; West Africa.

Significance. First Sonoran record.

BERNARDIA MYRICIFOLIA (Scheele) S. Watson (EUPHORBIACEAE).—Common 1.5–2.0 m shrubs on bare volcanic ledges top of canyon, Cruz del Diablo (Cañada Maimodochi), Cerro El Lobo, 7.5 km (by air), 13.2 km (by road) NE of Huasabas on road to El Coyote, Municipio de Huasabas, 29°56'18.2"N, 109°14'14.4"W, 1240 m, *Van Devender 95-535*, *Reina G.*, *J. J. Sánchez E.* (27 May 1995, ARIZ, RSA, USON [Universidad de Sonora]), det. V. W. Steinmann.

Previous knowledge. From south central New Mexico and central and southern Texas south to Tamaulipas, Nuevo León, and Coahuila.

Significance. First Sonoran record. A southwestern range extension of ca. 350 km from Doña Ana Co., New Mexico.

EUPHORBIA NUTANS Lag. (EUPHORBIACEAE).—Common annual in field on hillside in oak woodland, along Arroyo El Kípor just E of El Kípor on trail to Tierra Panda (Las Taunas), Municipio de Yécora, 28°24'N, 108°33'35"W, 1740 m, *Van Devender 95-967*, *Reina G.* (10 Sep 1995, ARIZ, RSA, USON); common annual near stream, Arroyo El Otro Lado, Mesa El Otro Lado, 1 km NE of Yécora on old road to Maycoba, pine-oak forest, Municipio de Yécora, 28°23'10"N, 108°54'55"W, 1540 m, *Van Devender 95-815 & 95-873*, *Reina G.*, *D. A. Yetman*, *M. E. Fishbein*, (7 Sep 1995, ARIZ, ARIZ, RSA, USON); common annual on roadside in pine-oak forest, 0.3 km W of Restaurant Puerto de la Cruz on México 16, north slope of Mesa del Campanero, Municipio de Yécora, 28°22'30"N 109°01'48"W, 1900 m, *Van Devender 96-544*, *Reina G.*, *G. Ferguson*, *J. T. Columbus*, *J. M. Porter* (9 Sep 1996, ARIZ, MEXU, RSA, TEX, UCR), dets. V. W. Steinmann.

Previous knowledge. Widespread in warmer parts of the world, in US from New York to South Dakota to central and western Texas.

Significance. First Sonoran records.

DIGITARIA TERNATA (A. Rich.) Stapf (GRAMINEAE).—Uncommon annual in moist soil, Arroyo El Otro Lado, Mesa El Otro Lado, 1 km NE of Yécora on old road to Maycoba, pine-oak forest, Municipio de Yécora, 28°23'10"N, 108°54'55"W, 1540 m, *Van Devender 95-835*, *Reina G.*, *D. A. Yetman*, *M. E. Fishbein* (7 Sep 1995, ARIZ, USON), det. J. R. Reeder.

Previous knowledge. Aguascalientes, Guanajuato, Hidalgo, Jalisco, México, Michoacán, and Sonora (2.1 km NW of Matarichi, Municipio de Sahuaripa, *R. S. Felger 94-387B*, ARIZ).

Significance. Second Sonoran collections of an introduced African annual.

PASPALUM PALMERI Chase (GRAMINEAE).—Uncommon perennial, Agua Amarilla (Los Pinitos), 15 km WNW of Tepoca, 24.7 km WNW of San Nicolás on México

16, km 200 east of Hermosillo, red volcanic barren with isolated *Pinus yecorensis-Quercus albocincta* woodland, Municipio de Onavas, ca. 28°08'20"N, 109°20'23"W, ca. 900 m, *Van Devender* 95-774, *Reina G., D. A. Yetman, M. E. Fishbein*, (6 Sep 1995, ARIZ, RSA, USON), det. J. R. Reeder.

Previous Knowledge. Only known from the type collection. (*E. Palmer* 704 in Sep 16–30, 1890, Alamos, Sonora, US; A. Chase, Contr. US Nat. Herb. 28:109, 1929).

Significance. Second collection of a little known grass. A northern range extension of 165 km. Its' relationship to the widespread *P. langei* (E. Fourn). Nash. warrants additional study.

DALEA TENTACULOIDES Gentry (LEGUMINOSAE).—Common 1.0 m tall shrub in shady understory in oak woodland in rocky canyon, Cruz del Diablo (Cañada Maimodochi), Cerro El Lobo, 7.5 km (by air), 13.2 km (by road) NE of Huasabas on road to El Coyote, Municipio de Huasabas, 29°56'18.2"N, 109°14'14.4"W, 1240 m, *Van Devender* 95-532, *Reina G., J. J. Sánchez E.* (27 May 1995, ARIZ, NY, USON), det. S. McMahon.

Previous knowledge. Southern Arizona. The species is an U. S. Fish and Wildlife Service Category 1 candidate.

Significance. First record for Sonora and México.

TRIFOLIUM AMABILE H.B.K. (LEGUMINOSAE).—Locally common herb near stream, Mesa El Otro Lado, 1 km NE of Yécora on old road to Maycoba, pine-oak forest, Municipio de Yécora, 28°23'10"N, 108°54'55"W, 1540 m, *Van Devender* 95-814, *Reina G., D. A. Yetman, M. E. Fishbein* (7 Sep 1995, ARIZ, MEXU, UCR, USON); uncommon herbaceous perennial in grassy area along street, Yécora, Municipio de Yécora, 28°22'25"N, 108°55'30"W, 1540 m, *Van Devender* 95-733, *Reina G., D. A. Yetman, M. E. Fishbein* (6 Sep 1995, ARIZ), det P. D. Jenkins.

Previous knowledge. SE Arizona; widespread in Mexico from Chihuahua, Durango, and Sinaloa, south to Central America.

Significance. Although expected for Sonora, these are the first collections.

BOTRYCHIUM SCHAFFNERI Underw. (OPHIOGLOSACEAE).—Solitary fern in understory in riparian pine-oak forest in stream canyon, 3–4 km NNW of El Kípor, Municipio de Yécora, 28°25'30"N, 108°36'20"W, 1640 m, *Van Devender* 95-390, *Reina G.*, (4 May 1995, ARIZ), det. G. Yatskievych.

Previous knowledge. Widespread in México from Chihuahua southward to Central and South America; West Indies.

Significance. First Sonoran record.

CAMPYLONEURUM ANGUSTIFOLIUM (Sw.) Fee (POLYPODIACEAE).—Moist pine-oak woods, waterfall at Saguaribo, Municipio de Alamos, 27°20'N, 108°39.8'W, 1550 m, *P. S. Martin* s. n., *D. A. Yetman* (17 March 1992, ARIZ, det. G. Yatskievych, 1996), solitary, large clump on cliff face, Los Pilares, Arroyo Los Pilares, ca. 23 km E of Yécora, 26 km W of Maycoba on México 16, Municipio de Yécora, 28°23'N, 108°47'W, 1260 m, *Van Devender* 95-902, *Reina G., D. A. Yetman, M. E. Fishbein* (8 Sep 1995, ARIZ, MO, UCR, USON), ver. G. Yatskievich.

Previous knowledge. Florida in US; widespread in México from Chihuahua southward to Central and South America; West Indies.

Significance. First Sonoran records.

CRUSEA PARVIFLORA Hook. & Arn. (RUBIACEAE).—Locally common annual, Agua Amarilla (Los Pinitos), 15 km WNW of Tepoca, 24.7 km WNW of San Nicolás on

México 16 at km 200, red volcanic barren with isolated *Pinus yecorensis*-*Quercus albocincta* woodland, Municipio de Onavas, ca. 28°08'20"N, 109°20'23"W, ca. 900 m, *Van Devender 95-752A, Reina G., D. A. Yetman, M. E. Fishbein*, (6 Sep 1995, ARIZ, PTBG), det. D. H. Lorence.

Previous knowledge. Pacific slopes of México from Sinaloa and Durango south to Costa Rica (W. R. Anderson, Mem. New York Bot. Garden 22:1-128, 1972).

Significance. First Sonoran record.

NICANDRA PHYSALODES (L.) Gaertn. (SOLANACEAE).—Common 1.5 m tall coarse annual in corn field (said to be contaminant in seed purchased in Cd. Obregón), Los Pilares, Arroyo Los Pilares, ca. 23 km E of Yécora, 26 km W of Maycoba on México 16, Municipio de Yécora, 28°23'N, 108°47'W, 1260 m, *Van Devender 95-900, Reina G., D. A. Yetman, M. E. Fishbein* (8 Sep 1995, ARIZ, MEXU), det. P. D. Jenkins.

Previous knowledge. Monotypic genus native to Perú, established in many warmer areas, in US from Nova Scotia to Florida, a waif in California; México to Costa Rica; northern South America; West Indies.

Significance. First Sonoran record.

TRIUMFETTA CHIHUAHUENSIS Standl. (TILIACEAE).—Rare 1.9 m tall shrub, Los Pilares, Arroyo Los Pilares, ca. 23 km E of Yécora, 26 km W of Maycoba on México 16, Municipio de Yécora, 28°23'N, 108°47'W, 1260 m, *Van Devender 95-881, Reina G., D. A. Yetman, M. E. Fishbein* (8 Sep 1995, ARIZ, TEX); common 1.5-2.0 m tall shrub in sycamore-pine-oak forest canyon, El Aguajito, Barranca Honda, north slope of Mesa del Campanero, 4.8 km W of Puerto de la Cruz on México 16, Municipio de Yécora, 28°22'18"N, 109°02'54"W, 1640 m, *Van Devender 96-554, Reina G., G. Ferguson, J. M. Porter, J. T. Columbus* (8 Sep 1996, ARIZ, MEXU, NMC, RSA, TEX, UCR, USON); uncommon 1.2 m tall shrub, Arroyo Hondo, 11.5 km E of El Kípor on México 16, Municipio de Yécora, 28°26'30"N, 108°32'30"W, 1460 m, *Van Devender 96-605, Reina G., G. Ferguson, L. Coyote* (11 Sep 1996, ARIZ, MEXU, TEX), dets. P. A. Fryxell.

Previous knowledge. Described from Guayanopa Canyon, Sierra Madre Occidental, Chihuahua (P.C. Stanley 1923, Contr. US Nat. Herb. 23:744).

Significance. First Sonoran records.

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