

NOMENCLATURAL CHANGES IN MEXICAN DIOSCOREACEAE AND LEGUMINOSAE

Oswaldo Téllez V.
Herbario Nacional
Instituto de Biología UNAM
Apartado Postal 70-367
04510 México, D.F., Mexico

Recent work on the Mexican and Central American species of *Dioscorea* (Dioscoreaceae; Téllez & Schubert 1994) and *Tephrosia* (Leguminosae) revealed the necessity for some nomenclatural changes. These are presented here, along with discussions and citations of selected specimens.

DIOSCOREACEAE

Dioscorea gomez-pompae O. Téllez, nom. et stat. nov. *Dioscorea spiculiflora* var. *chiapasana* Gómez-Pompa, Ciencia (México) 18(11–12): 242. 1959.—TYPE: MEXICO. Chiapas: [Jardín Botánico de Chiapas] material procedente de la bajada de Suchiapa, selva baja decidua, 11 Nov 1953, *Miranda* 7914 (holotype: MEXU!; isotype: MEXU!).

REPRESENTATIVE SPECIMENS. CHIAPAS: Amatenango de la Frontera, between Amatenango and Frontera Comalapa, along Río Cuilco, 4 Oct 1976, *Breedlove* 40671 (MEXU); Mpio. Acala, near Acala, 6 Nov 1980, *Breedlove* 47156, 47157 (MEXU); El Chorreadero, sobre el Km 25 de la carretera Tuxtla Gutiérrez–San Cristóbal de las Casas, 26 Nov 1982, *Cabrera & de Cabrera* 3862 (MEXU); Rancho La Esperanza, Tuxtla Gutiérrez, *Gómez P.* 71 (MEXU); Puente Belisario Domínguez, Río Grijalva, al E de Tuxtla Gutiérrez, 11 Sep 1958, *Gómez P.* 137 (MEXU); bajada Suchiapa, 11 Nov 1953, *López E.* 7915 (MEXU); Nuevo Orizaba a 28 km al W del vertice del Río Chixoy, camino a Chajul, 8 Nov 1985, *Martínez* 15259 (MEXU); Mpio. Ocozocuatla, El Yeso, a 15 km al S de Cintalapa, 11 Dec 1987, *Martínez & Reyes G.* 22000 (MEXU); Escuintla, 5 Feb 1936, *Matuda* 875 (MEXU); Escuintla, 11 Dec 1937, *Matuda* 2137 (MEXU); Cacaluta, Escuintla, 12 Oct 1947, *Matuda* 17061 (MEXU); Mpio. Tonalá, Sta. Rosa, 17–18 Dec 1947, *Matuda* 17360 (MEXU); Villa Flores, Rancho Margarita, 2 Jul 1950, *Miranda* 6425 (MEXU); Barranca Pishtinbek (N Tuxtla G.), 3 Dec 1950, *Miranda* 6729 (MEXU); Mpio. Huixtla, Huixtla, 3 Sep 1952, *Miranda* 7634 (MEXU); Cerro Vernal, 20 km al E de Tonalá, 20 Nov 1984, *Téllez et al.* 8142 (MEXU).

This taxon was described by Gómez-Pompa (1974) as *D. spiculiflora* var. *chiapasana* in sect. *Apodostemon* Uline of subg. *Dioscorea*. It is characterized by its sinistrorsely twining stems and its leaves. The leaf blades are suborbicular to orbicular and basally auriculate (occasionally the lobes overlapping) with the sinus campanulate in outline; the petioles are basally winged. It occurs in the coastal regions of Chiapas and the Pacific slope of Guatemala. *Dioscorea spiculiflora* Hemsl. ["var. *spiculiflora*"] differs in its dextrorsely twining stems, triangular leaf blades basally auriculate (the lobes never overlapping) with the sinus subquadrate to subrectangular in outline, and unwinged petioles. Its range extends, mainly along the Atlantic slope, from San Luis Potosí, Mexico, to Costa Rica.

The differences in morphology and distribution warrant the recognition of "var. *chiapasana*" at the species level; however, the name *D. chiapasensis* is already

occupied (Matuda 1953). The new name *Dioscorea gomez-pompae* is here proposed and honors Arturo Gómez-Pompa, an expert in the study of the Mexican Dioscoreaceae.

Dioscorea fasciculocongesta (Sosa & B. G. Schubert) O. Téllez, stat. nov. *Dioscorea spiculiflora* var. *fasciculocongesta* Sosa & B. G. Schubert, Biótica 11(3): 187. 1986.—TYPE: MEXICO. Veracruz: Mpio. Juchiqué de Ferrer, el Cerro de Villa Rica cerca de Mundo Nuevo, 1500 m, 19°48'N, 96°46'W, 7 May 1981, *Castillo, Cortés & Becerra 1836* (holotype: XAL!).

REPRESENTATIVE SPECIMENS. PUEBLA: Villa de Juárez, 19 Apr 1959, *Gómez P. 168* (MEXU); 5 km al sur de Villa Juárez, 17 Apr 1958, *Gómez P. 85* (MEXU), *Tenorio 8770* (MEXU).—VERACRUZ: *Ventura 1135, 3503, 12668* (ENCB), *Sosa et al. 163* (XAL).

This taxon was described as a variety of *D. spiculiflora*, but is there misplaced and here elevated to the level of species. It is more closely allied with *D. mexicana* Scheidw. with which it shares ovate, chartaceous to membranous leaves with conspicuous and prominent midveins, oblong capsules, and pollen of similar size. *Dioscorea fasciculocongesta* has hypogeous and smooth rhizomes; the staminate inflorescences bear the flowers arranged in congested fascicles that are conspicuously separated on the axis and have ovate, long-acuminate bracts. It is endemic to a montane forest located along the border of Puebla and Veracruz. In contrast, the rhizomes of *D. mexicana* are epigeous and have the surface broken into flat prismatic plates, resembling the shell of some turtles. The staminate inflorescences have the flowers scattered along the rachis and have short, inconspicuous bracts. It grows mainly in tropical forests from southern Veracruz and Oaxaca, Mexico, to Panama.

Dioscorea galeottiana Kunth, Enum. pl. 5: 409. 1850. *Dioscorea convolvulacea* var. *galeottiana* (Kunth) Uline, Bot. Jahrb. Syst. 22: 427. 1897. *Dioscorea grandiflora* M. Martens & Galeotti, Bull. Acad. Roy. Sci. Bruxelles 9(2): 392. 1842, non *Dioscorea grandiflora* C. Martius ex Griseb., 1842.—TYPE: MEXICO. Oaxaca: Costa del Pacífico, Yolotépéquez, 7000 ft, Sep–Nov 1840, *Galeotti 5457* (holotype: BR, photo: MEXU!).

Dioscorea lobata Uline, Bot. Jahrb. Syst. 22: 427. 1897.—TYPE: MEXICO. [Distrito Federal:] in vallibus prope urbem, *Schmitz s.n.* (holotype: B!).

Dioscorea lobata var. *lasiophylla* Uline ex Knuth, Notizbl. Bot. Gart. Berlin-Dahlem 7: 194. 1917.—TYPE: MEXICO. *Pavón s.n.* (holotype: B!).

Dioscorea convolvulacea var. *viridis* Uline, Bot. Jahrb. Syst. 22: 427. 1896.—TYPE: MEXICO. Oaxaca: Sierra de San Felipe, 2500 m, *Pringle 4890* (holotype: B!).

REPRESENTATIVE SPECIMENS. DISTRITO FEDERAL: Ixtapalapa, 1911, *Altamirano s.n.* (MEXU); 1 km al O de Santa Clara, 1 Sep 1953, *Barajas M. s.n.* (MEXU); Pedregal de San Angel, 18 Oct 1965, *Diego 173* (MEXU); Pedregal de San Angel, 18 Oct 1965, *Diego 174* (MEXU); Pedregal de San Angel, 1 Feb 1966, *Diego 393* (MEXU); Del. de Coyoacán, 200 m al N de la Sala Netzahualcoyotl, 9 Aug 1986, *García M. 2689* (MEXU); Pedregal de San Angel, *Gómez P. 34* (MEXU); Ciudad Universitaria, 27 May 1980, *Hernández M. 4389* (MEXU); Pedregal de San Angel, 13 Aug 1945, *Hernández X. 308* (MEXU); Pedregal, Aug 1924, *Lyonnet 33* (MEXU); Lomas, 17 Oct 1937, *Lyonnet E. 1742* (MEXU); Pedregal de San Angel, 10 Sep 1950, *Matuda 19537* (MEXU); Cerro Zacayuca, 11 Sep 1980, *Panti M. 332* (MEXU); Ejidos de Padierna, 30 Jul 1980, *Panti M. 536* (MEXU); Pedregal, Tizapán, 19 Aug 1896, *Pringle s.n.* (MEXU); Pedregal de San Angel, cerca de los Reyes, 28 Sep 1952, *Rzedowski 1848*,

1849 (MEXU); Delegación de Xochimilco, desviación del Conejo, 8 Aug 1976, *Ventura A. 1839* (MEXU); Delegación de Milpa Alta, San Pedro Atoxtlan, 4 Sep 1977, *Ventura A. 3027* (MEXU); Pedregal de San Angel, Ciudad Universitaria, D.F., frente a la Facultad de Ciencias, U.N.A.M., 7 Aug 1986, *Villaseñor et al. 942* (MEXU).—MÉXICO: Mpio. Huixquilucan, 2 km al SW de San Bartolito, 18 Sep 1982, *Galván R. 1276* (MEXU); Mpio. Texcoco, Baños de Netzahualcoyotl (Cerro Tetzcotcingo), 7 km al E de Texcoco, 3 Aug 1976, *Koch & García P. 76145* (MEXU); Mpio. Amecameca, en loma de Panteón, Amecameca, 20 Sep 1950, *Matuda 19322* (MEXU); Cerro del Tigre, al NW de Atizapán, 4 Aug 1974, *Rzedowski 31993* (MEXU); Mpio. Huehuetoca, vertiente W del Cerro Sincoque, 3 Aug 1976, *Rzedowski 34347* (MEXU); lomas de Atizapán y Chiluca, 7 Sep 1980, *Ventura A. 3666* (MEXU).—GUERRERO: Mpio. Chilpancingo, 3 km al SW de Omiltemi, 4 Dec 1966, *Rzedowski 23599* (MEXU).—MICHÓACÁN: Mpio. Erongaricuaro, 5 km al W de Erongaricuaro, 22 Aug 1993, *Cházaro B. et al. 7201* (MICH, MEXU); Mpio. Erongaricuaro, 0.5 km al W de la hacienda de Charahuen, 27 Oct 1986, *Espinosa G. 2314* (MEXU); Mpio. Pátzcuaro, 2.5 km al SE de Ajuno, carr. Pátzcuaro-Uruapan, 3 Nov 1986, *Espinosa G. 2405* (MEXU); 4 km al S de Indaparapeo, sobre el camino a Las Peras, 27 Sep 1989, *Rzedowski 49046* (MEXU); en la desviación a Santiago Undameo, 16 km al SW de Morelia, carr. a Tiripetio, 9 Sep 1979, *Soto N. 991* (MEXU).—MORELOS: autopista Mexico-Cuernavaca, Km 53.5, 9 Oct 1960, *Espinosa J. 351* (MEXU); Mpio. Tepoztlán, 2–3 km al N de Tepoztlán, sobre la cañada de la zona arqueológica del Tepozteco, 5 Oct 1986, *Flores F. & Cabrera 149* (MEXU); Mpio. Tepoztlán, Tepozteco, 22 Sep 1938, *Lyonnet 2555* (MEXU); Mpio. Cuernavaca, Salto de San Antonio, 5 Aug 1951, *Matuda 21629* (MEXU); Mpio. Tepoztlán, Tepoztlán, 5 Sep 1953, *Matuda 30143* (MEXU); Mpio. Tepoztlán, Tepoztlán, 5 Oct 1953, *Matuda 30151* (MEXU).—OAXACA: Dto. San Juan Mixtepec, Independencia, a 8 km al E de San Juan Mixtepec, 17 Nov 1988, *Reyes J. 1329* (MEXU); Dto. San Juan Mixtepec, Yuu Tzaan (Cañada de Cazuelas), a 9 km al S de San Juan Mixtepec, 3 Sep 1989, *Reyes J. 1931* (MEXU).—QUERÉTARO: El Batán, 27 May 1982, *Argüelles E. 1794* (MEXU).

Review of the types of *Dioscorea lobata* and *D. lobata* var. *lasiophylla*, and comparison with other collections showed that the two names are synonyms of the older name *D. galeottiana*. The type material for both is fragmentary. The type of *D. lobata* consists of a leaf and two staminate inflorescences collected by Schmitz near Mexico City, and that of *D. lobata* var. *lasiophylla* of only one leaf from an unknown locality (the collection attributed to Pavón). In both the leaf is lobate and densely pubescent, and the flowers of *D. lobata* have a purple corolla and three stamens. These characters are shared with *D. galeottiana*, the only species of *Dioscorea* occurring in the Valley of Mexico.

LEGUMINOSAE

Tephrosia crassifolia Benth., Bot. Voy. Sulph. 80. 1844.—TYPE: MEXICO. Guerrero: Acapulco, 1842, *Hinds s.n.* (holotype: K!).

Tephrosia smythiae McVaugh, Flora novo-galiciana 5: 726. 1987.—TYPE: MEXICO. Jalisco: Mpio. Cabo Corrientes, rocky stream valley, ca. 5 km N of El Tuito, *McVaugh 25487* (holotype: MICH!; isotype: MEXU!).

REPRESENTATIVE SPECIMENS. GUERRERO: Potrerillos del Rincón, camino San Luis Acatlán–Iliatenco, 5 Feb 1986, *Aguilar J. 1414* (MEXU).—JALISCO: Mpio. Cabo Corrientes, 6 km al O de El Tuito, camino a Chacala, cerca de Los Guacimas, 5 Feb 1979, *Solis M. et al. 1526, 1532* (MEXU); Mpio. Tuito, 5 km al N de El Tuito, carr. Barra de Navidad–Puerto Vallarta, 6 Feb 1991, *Téllez V. & Novelo 12923* (MEXU).—MICHÓACÁN: La Mada, Feb 1899, *Langlassé 851, 851 bis* (F).—NAYARIT: Mpio. Compostela, along hwy 200 between Tepic and Puerto Vallarta, 33 mi S of Tepic, 4 mi N of Las Varas, 9 Jan 1979, *Croat 45369* (MEXU); Mpio. Aaponeta, Tiger Mine, 1 Mar 1927, *Jones & Jones 23022* (MEXU); Mpio. Compostela, cerca de Las Varas, Km 60 de la carr., 27 Apr 1974, *Vargas & Ochoa A. & 1335* (MEXU); Mpio. Compostela, Km 60 de la carr. Compostela–Las Varas, 22 Jan 1994, *Calzada J. et al. 19122, 19125* (MEXU); Mpio. San Blas, Km 3–5 sobre el camino a Pintadeño, que sale en el Km 16 de la carr. Tepic–Miramar, 12 Sep 1985, *Téllez V. 9294* (MEXU); Mpio. Tepic, 3 km

al E de Cora, terracería al Cuarenteño, 29 Mar 1987, *Téllez V. 10050* (MEXU); Mpio. Tepic, Km 20–30 camino de terracería a el Cuarenteño–Cora–Jalcocotán, en la serranía de San Juan, 14 Jan 1988, *Téllez V. 11134* (MEXU); Mpio. Compostela, Km 60 carr. Tepic–Pto. Vallarta Jal., 15 Feb 1980, *Zárate S. 469* (MEXU).—OAXACA: Dto. Juchitán, Mpio. Sta. María Chimalapa, ca. 13 km al E de Sta. María, filo de lava en la vereda a Chimalapilla y Monte Rico, al NE del Río del Corte, 27 Oct 1984, *Hernández G. 529* (CHAPA, MEXU); Dto. Pochutla, Pluma Hidalgo, San Rafael Toltepec, a 17 km al N de Pochutla, 14 Feb 1976, *Sousa S. et al. 5347* (MEXU); Dto. Putla de Guerrero, 15 km al SE de Putla, 19 Aug 1976, *Sousa S. et al. 5858* (MEXU); Dto. Pochutla, Mpio. Pluma Hidalgo, Toltepec, a 2 km de la carr. Pochutla–Miahuatlán, en la carr. a Pluma Hidalgo, 23 Oct 1976, *Sousa S. et al. 6470* (MEXU); Dto. Putla de Guerrero, Santa Cruz del castillo, a 13 km al S de Putla, 4 Feb 1977, *Sousa S. et al. 7031* (MEXU, MO); Dto. Pochutla, a 6 km al NE de Chacalapa, en la desv. a Finca Pilas, 7 Feb 1977, *Sousa S. et al. 7121* (MEXU, MO); Dto. Putla de Guerrero, a 14 km al SE de Putla de Guerrero, 28 Jun 1977, *Sousa S. et al. 7683* (MEXU); Dto. Putla de Guerrero, Santa Cruz del Castillo, a 13 km al S de Putla de Guerrero, 6 Dec 1978, *Sousa S. & Zárate 9897* (MEXU, MO).

When McVaugh (1987) described *Tephrosia smythiae*, he stated that this species is “very like *Tephrosia crassifolia* in most details, but the leaflets tending to be ovate rather than elliptic-obovate, and acute rather than obtuse or rounded at apex.” Examination of collections of *T. crassifolia* from throughout its range, Sinaloa to Chiapas, showed that these differences are included in the variation of the foliar morphology. Consequently, *T. smythiae* can no longer be maintained.

Tephrosia leucantha Kunth in H.B.K., Nov. gen. sp. 6[folio]: 360. 12 Jul 1824; 6[quarto]: 460. Sep 1824.—TYPE: MEXICO. Guanajuato: cerca de Guanajuato, ca. 2000 m, Sep 1803, *Humboldt & Bonpland s.n.* (holotype: P, microfiche IDC 800-12: MEXU!).

Tephrosia feddemana McVaugh, Flora novo-galiciana 15: 712. 1987.—TYPE: MEXICO. Michoacán: Cerro Santa María, 8–10 km SW of Jiquilpan, and ca. 5 km NE of Quitupan, Jal., shrubby vegetation in oak forest near summits, ca. 2000 m, 8–9 Aug 1959, *Feddema 227* (holotype: MICH!; isotype: MEXU!).

REPRESENTATIVE SPECIMENS. CHIHUAHUA: Sierra Madre Mts, Guayanopa Canyon, 24 Sep 1903, *Jones & Jones s.n.* (MO); near Cusihiuriachic, 28 Sep 1888, *Pringle 2006* (MO); Sierra Madre near Colonia García, 11 Oct 1899, *Townsend & Barber 367* (MO).—DURANGO: 21–27 Aug 1906, *E. Palmer 478* (MO).—NAYARIT: Mpio. Nayar, Sierra de Las Palomas (Sierra de Alica), 9 Oct 1963, *Schubert & Sousa 2041* (MEXU); Mpio. La Yesca, 22.3 km al W de Huajimic, brecha a Tepic, 27 Oct 1989, *Tenorio L. & Flores F. 16746* (MEXU).—QUERÉTARO: Del Ciervo al cerro de la Mesa, 20 Aug 1905, *Altamirano F. 1564* (MEXU).—SONORA: Alamos, 3 km al S de La Lobera, Ejido Zahuarivo, 25 Aug 1986, *Lezama T. & Frame 11925* (MEXU).—ZACATECAS: south slope of La Bufa, 10 Aug 1948, *Dressler 113* (MO).

When McVaugh (1987) described *Tephrosia feddemana* he did not discuss how it differs from other species; however, in his key to Leguminosae in the same work, he differentiates it from *T. leucantha* by type of pubescence, bracts length, and the degree of adnation of the vexillar stamen. I believe only the last is noteworthy; the stamen is adnate to the staminal tube in *T. leucantha* but not in *T. feddemana*. Yet, the adnation of the stamen to the staminal tube is not a constant and reliable character. I have observed many times that during the development of the fertilized gynoecium the vexillar stamen tends to separate from the staminal tube; thus, the degree of adnation seen may depend on the stage of gynoecial development. I believe this phenomenon deserves further investigation before its taxonomic significance can be evaluated. Unfortunately, for *T. feddemana* only

the type collection is available for study. Because in all other features the type of *T. feddemana* agrees with the morphological variation shown by *T. leucantha* throughout its range, it is here included in *T. leucantha*.

ACKNOWLEDGMENTS

I thank Patricia Dávila Aranda for reviewing the manuscript and translating it into English, and for her useful comments. I am grateful to Harriet Gillett (WCMC), the World Conservation Monitoring Centre (United Kingdom), and British Airways for financial support for visits to herbaria in Germany and Switzerland. The National Geographic Society provided financial support for fieldwork (grant 4349-89), and W. Berendsohn (B) gave assistance with logistics. I thank the curators of the following herbaria for permitting me to study their collections: B, BM, ENCB, F, GH, K, MICH, MO, NY, US, and Z.

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Téllez Valdés, Oswaldo. 1997. "Nomenclatural changes in Mexican Dioscoreaceae and Leguminosae." *Contributions from the University of Michigan Herbarium* 21, 309–313.

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