

RANGE EXTENSIONS IN THE SIERRA MADRE OCCIDENTAL, CHIHUAHUA, MÉXICO

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ABSTRACT

Opuntia durangensis Britt. & Rose, *Smilax moranensis* Mart. & Gal., *Muhlenbergia durangensis* Herrera vel aff., *Erigeron delphinifolius* Willd., and *Browallia* sp. are reported from Chihuahua for the first time. Range extensions within Chihuahua are reported for *Ilex tolucana* Hemsl. and *Leibnitzia occimadrensis* Nesom. All were collected in the vicinity of Nabogame, Municipio Temósachi, Chihuahua, México, in the Sierra Madre Occidental.

RESUMEN

Opuntia durangensis Britt. & Rose, *Smilax moranensis* Mart. & Gal., *Muhlenbergia durangensis* Herrera vel aff., *Erigeron delphinifolius* Willd., y *Browallia* sp. se relatan de Chihuahua por primera vez. La distribución geográfica de *Ilex tolucana* Hemsl. y *Leibnitzia occimadrensis* Nesom se extienden hasta esta parte de Chihuahua. Todos se recolectaron de la vicinidat de Nabogame, Municipio Temósachi, Chihuahua, México, en la Sierra Madre Occidental.

KEY WORDS: México, *Opuntia*, *Smilax*, *Muhlenbergia*, *Browallia*, *Ilex*, *Leibnitzia*

INTRODUCTION

Intensive collecting by the author in the Mountain Pima community of Nabogame in the Sierra Madre Occidental of Chihuahua, México, between October 1986 and November 1988 has resulted in the collection of several species not previously reported from Chihuahua. These include *Opuntia durangensis* Britt. & Rose (Cactaceae), *Smilax moranensis* Mart. & Gal. (Smilacaceae), *Muhlenbergia durangensis* Herrera *vel aff.* (Poaceae), *Erigeron delphinifolius* Willd. (Asteraceae), and *Browallia* sp. (Solanaceae). In addition, range extensions within Chihuahua are reported for *Ilex tolucana* Hemsl. (Aquifoliaceae) and *Leibnitzia occimadrensis* Nesom (Asteraceae). Each is known from southern Chihuahua but not the northern or central parts of the state.

Opuntia durangensis, new to Chihuahua

Opuntia durangensis Britt. & Rose, Smiths. Misc. Coll. 50:518. 1908.

Specimens examined: MÉXICO. Chihuahua: Municipio Temósachi: Nabogame, 28° 30' N, 108° 30' W, elev. 1800 m, fruit yellow, oak woodland, 11 Sep 1987, *Laferrière* 1119 (ARIZ, ASU, MEXU); 1 km S of Nabogame, field, fruit red, 20 Sep 1987, *Laferrière* 1198 (ARIZ, ASU, MEXU); Nabogame, oak woodland, in flower, 17 Jun 1988, *Laferrière* 1438 (ARIZ, ASU, MEXU); Nabogame, canyon under *Cupressus arizonica* E. Greene, in flower, 18 Jun 1988, *Laferrière* 1444 (ARIZ, ASU, MEXU); Nabogame, oak woodland, fruit yellow, 28 Aug 1988, *Laferrière* 1846 (ARIZ, ASU, MEXU); Nabogame, canyon under *Cupressus arizonica*, fruit red, 18 Oct 1988, *Laferrière* 2107 (ARIZ, ASU, MEXU); 2 km S of Nabogame, field, fruit yellow, 18 Oct 1988, *Laferrière* 2114 (ARIZ, ASU, MEXU); same site, fruit red, *Laferrière* 2115 (ARIZ, ASU, MEXU).

This species is known previously only from Durango (Britton & Rose 1963; Bravo-Hollis 1978; Backeberg 1982). This report constitutes a range extension not only for the species but also for the series *Macdougalianae*.

Both red fruited and yellow fruited specimens are present in Nabogame. The original description of the species describes the fruits as "white or red" (Britton & Rose 1908). The local Pima names for the yellow and red forms are "duraznillo blanco" and "duraznillo colorado;" the use of the word "white" in Britton & Rose's description may reflect this folk taxonomy.

Smilax moranensis, new to Chihuahua

Smilax moranensis Mart. & Gal., Bull. Acad. Brux. 9(2):389. 1842.

Specimens examined: MÉXICO. Chihuahua: Municipio Temósachi: South side of Río Yepachi, 4 km S of Nabogame, under *Acer grandidentatum* Nutt. and *Cupressus arizonica*, 6 Dec 1987, *Laferrière 1323* (ENCB, UC); same site, 3 Nov 1988, *Laferrière 2252* (ANSM, ARIZ, CHAPA, MEXU, SD, TEX).

The site from which this species was collected is more mesic than much of the surrounding area. The plant is known from Sonora, Sinaloa, and Coahuila south to Oaxaca, but not previously from Chihuahua (Morton 1962).

Browallia sp. nov. ined., new to Chihuahua

Browallia sp. nov. ined.

Specimens cited: MÉXICO. Chihuahua: Municipio Temósachi: 1 km N of Nabogame, field, 29 Aug 1987, *Laferrière 1003* (ARIZ, VDB); 3 km N of Nabogame, sunlit rocky area above waterfall, 27 Jul 1988, *Laferrière 1562* (ARIZ, VDB); Nabogame, oak woodland, 8 Aug 1988, *Laferrière 1629* (ARIZ, MEXU, VDB).

This is the first report of this genus from northern México. It is previously known from southern México and Central America to Bolivia and the Antilles (D'Arcy 1973, 1978; Gentry & Standley 1974; Hunziker 1979). The specimens cited will soon be described as a new taxon (W. D'Arcy, R. Van Devender & P. Jenkins, personal communication).

Muhlenbergia durangensis vel aff., new to Chihuahua

Muhlenbergia durangensis Herrera, Phytologia 63:457. 1987.

Specimens examined: MÉXICO. Chihuahua: Municipio Temósachi: 1 km NE of Nabogame, pine-oak forest, 25 Mar 1988, *Laferrière 1416* (ANSM, ARIZ, MEXU, TEX).

This species is known only from Durango (Herrera 1987). The Nabogame specimen differs from the type description in having smaller glumes (3-4 mm

long) and longer ligules (3.5-4.5 mm long). The Nabogame specimens are either *Muhlenbergia durangensis* or a new taxon. More collections would be necessary to determine which.

Erigeron delphinifolius, new to Chihuahua

Erigeron delphinifolius Willd., *Enum. Hort. Berol.* 2:873. 1809.

Specimens examined: MÉXICO. Chihuahua: Municipio Temósachi: 2 km N of Nabogame, oak woodland on steep slope, 6 Nov 1988, *Laferrière* 2267 (ARIZ, MEXU, TEX).

This species is known from Durango to Michoacán and Puebla (Nesom 1989). This is the first published report from Chihuahua.

Range Extension of *Ilex toluhana*

Ilex toluhana Hemsl., *Diagn. Pl. Nov.* 5. 1878.

Specimens examined: MÉXICO. Chihuahua: Municipio Temósachi: 1 km E of Nabogame, along streambank under *Cupressus arizonica*, 25 Aug 1987, *Laferrière* 948 (ANSM, ARIZ, CHAPA, MEXU, TEX).

Nabogame is the most northerly known location of this species. It is previously reported from the Sierra Charuco 60 km to the south of Nabogame, as well as from southern México (Gentry 1942).

Range Extension of *Leibnitzia occimadrensis*

Leibnitzia occimadrensis Nesom, *Brittonia* 35:130. 1983.

Specimens examined: MÉXICO. Chihuahua: Municipio Temósachi: South side of Río Yepachi, 4 km S of Nabogame, under *Acer grandidentatum* Nutt. and *Cupressus arizonica*, 18 Oct 1988, *Laferrière* 2136 (ARIZ); 1 km E of Nabogame, under *C. arizonica*, 28 Oct 1988, *Laferrière* 2227 (MEXU, TEX).

This is a range extension of 300 km for this species, previously known from Sinaloa and extreme southern Chihuahua (Nesom 1983). The site for this collection is the same as that for *Smilax moranensis*.

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