

RUBUS SIERRAE (ROSACEAE): A NEW SPECIES FROM CHIHUAHUA

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ABSTRACT

Rubus sierrae is a new species of the Rosaceae from the Sierra Madre Occidental of Chihuahua, México. It is distinguished by its serrate sepals and ternate leaves.

RESUMEN

Rubus sierrae es nueva especie de las Rosáceas de la Sierra Madre Occidental de Chihuahua, México. Se distingue por sus sépalos serratos y sus hojas ternatas.

KEY WORDS: *Rubus*, blackberry, raspberry, mora, Chihuahua, Mountain Pima

Laferrière (1994) cited a specimen of the genus *Rubus* from Chihuahua, México, as "*Rubus arizonensis* Focke *vel aff.*" Closer examination indicates that the specimen differs significantly from this and all other known species. It is therefore described as a new member of the Rosaceae.

Rubus sierrae J.E. Laferrière, *spec. nov.* TYPUS: MEXICO. Chihuahua: Municipio Temósachi, in maple grove by banks of Río Yepachi, 4 km S of Nabogame, 28° 20' N, 108° 30' W, 1600 m, 28 Jul 1988, J.E. Laferrière 1579 (HOLOTYPUS: ARIZ; Isotypi: HUMO, MEXU).

Rubus arizonensis auct non Focke, Phytologia 77:128. 1994.

Rubus sp. 1 A. Harlan & P. Jenkins, in P.S. Martin *et al.*, Gentry's Rio Mayo Pl., p. 426. 1998.

Folia pinnate ternata; foliola lanceolata, serrata, non lobata. Sepala linearia, proxime alba et pubenta, distale viridia et serrata.

Shrub erect, 1 m tall, pubescent; trichomes white, unbranches, sometimes with a yellowish gland at the base. Stems yellowish green, sparsely armed; prickles slightly curved, 1-4 mm long, slender at the base, tapering toward the tip, older stem prickles yellowish below, reddish in the middle, yellowish toward the tip. Leaves pinnately ternate; stipules filiform, pubescent, 0.5 cm long; petioles 2.0-3.5 cm long, yellowish green, pubescent, sparingly armed; leaflets lanceolate, biserrate, sparingly puberulent, green above, slightly lighter green below, bearing a few small prickles along the costa below; lateral leaflets 3.5-5.0 cm long, 1.5-2.7 cm wide; terminal leaflets 3.5-5.0 cm long, 2.5-3.0 cm wide, borne on a stalk 0.6-0.8 cm long. Flowers solitary, terminal on a leafy lateral branch; sepals nearly linear but slightly sinuate, constricted in the middle, 0.9-1.3 cm long, 0.2-0.3 cm wide, not reflexed, the proximal half linear, pale green, densely pubescent with many short hairs, the margins of the proximal half entire, the distal portion darker green, sparingly pubescent, bearing 3-5 pairs of serrations up to 1.0 mm deep; petals 0.5 cm long, white. Fruit and seeds unknown.

Named in memory of Dionysia Sierra Cruz (1985-87) of Nabogame.

Because of the lack of fruits, it is impossible to discern with certainty the plant's true relationships. Subgenera in the genus are delimited largely by fruit characters (Bailey 1940-45). The distinctive sepals, however, leave little doubt that it is indeed a new species. The vast majority of North American species of *Rubus* have entire, uniformly colored sepals. The solitary flowers are also unusual; most species of the genus have many-flowered panicles. The cultivated European species *R. laciniatus* Willd., naturalized in many parts of North America, has serrate, bicolored sepals like those of *R. sierrae*, but its sepals bear prickles. The leaves of *R. laciniatus* are generally deeply divided. *Rubus pedatus* Smith, which ranges from Alaska to Idaho and Oregon, has dentate sepals, but this is a small, mat-forming species with 5-foliate leaves. *Rubus neomexicanus* A. Gray, *R. parviflorus* Nutt, and *R. trilobus* Seringe all bear two-tone sepals sometimes with a hint of serration, but all these species are entirely unarmed and bear simple, palmately lobed leaves. In vegetative characters, *R. sierrae* resembles *R. arizonensis*, but these are readily distinguished by the former's smaller, slenderer spines of nearly uniform thickness. The spines of *R. arizonensis* are swollen at the base and taper very gradually toward the tip.

The type locality of *Rubus sierrae* was included in Harlan & Jenkins's (1998) treatment of *Rubus* of the Río Mayo region. They list three named species; the description above of *R. sierrae* creates a fourth named species in the region. A key to the four is given below.

- Spines stout at base. *Rubus arizonensis* Focke
- Spines slender at base.
 - Sepals bicolored, proximally entire and with white pubescence, distally green and the margins serrate; flowers solitary. *R. sierrae* J.E. Laferr.
 - Sepals uniformly colored, the margins entire throughout; flowers corymbose
 - Leaves bicolored, abaxially glaucous, adaxially dark green.
 - *R. leucodermis* Dougl.
 - Leaves uniformly dark green on both sides. *R. humistratus* Steud.

Rubus sierrae occurs in a riparian forest dominated by *Acer grandidentatum* Nutt. and *Cupressus lusitanica* Mill. This is an unusual habitat for the region, much moister

than the surrounding pine-oak forest. The Mountain Pima inhabitants of Nabogame refer to the plant as "mora." This is the same name they apply to the cultivated mulberry, *Morus rubra* L.

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