



## ***Heuchera lakelae* (Saxifragaceae), a new species from the Sierra La Marta and Sierra Coahuilón, Coahuila and Nuevo León, Mexico**

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### **Abstract**

Described herein is a new species from high-elevation limestone outcrops in the northern Sierra Madre Oriental, closely allied to *Heuchera sanguinea*, from which it is distinguished on the basis of 6 morphological characters (external flower surface color and indumentum, petal color, petal shape, stamen exertion, and overall flower shape) as well restriction to high elevations and a geographical range restricted to the Sierra la Marta and Sierra Coahuilón.

### **Introduction**

*Heuchera* is the largest by far of a series of North American endemic genera of the Saxifragaceae, with about 43 species. It is also the most widely distributed, occurring from Kodiak Island, Alaska, south to the Sierra Madre de Oaxaca of southern Mexico, and from the Atlantic forests to the Pacific coastal bluffs within meters of the sea. It has its greatest diversity in the western Cordillera, where it is well-known for its difficult morphological patterns and frequent hybridization both ancient and recent (Wells & Shipes 2009, Rosendahl, Butters & Lakela 1936, Soltis *et al.* 1991, Folk & Freudenstein unpublished). My own morphological investigations have indicated that there is significant diversity within the genus in the mountains of Mexico that has yet to be described, particularly in the north, owing to a high natural diversity and to the paltry work that has been devoted to them in this area.

During recent inspections of Mexican herbarium material a highly distinct plant of restricted occurrence has come to my attention, which is here described as a new species and placed within the subgeneric taxonomy of Rosendahl, Butters & Lakela (1936).

### **Materials and Methods**

Herbarium loans were obtained from ASU, BRIT, CAS, F, MEXU, MICH, MO, NY, RSA, TEX, US, VT, and XAL, comprising 765 sheets of *Heuchera* from Mexico. I have reviewed types belonging to all species of *Heuchera* that have been described from Mexico and the adjacent US, either in person, or where necessary through high resolution digital images. The names that have been examined are: *H. acutifolia*, *H. amoena*, *H. halstedii*, *H. hemsleyana*, *H. leptomeria*, *H. longipetala*, *H. mexicana*, *H. minutiflora*, *H. orizabensis*, *H. pulchra*, *H. reglensis*, *H. rubescens*, *H. sanguinea*, *H. townsendii*, and *H. versicolor*. A phylogenetic species concept (Nixon & Wheeler 1990), in which a species is the most restrictive collection of populations with a unique combination of character states, was applied in the context of the most recent treatment of Mexican *Heuchera* species (Rosendahl, Butters & Lakela 1936) to revise and delimit taxa.