



## *Coccoloba floresii* (Polygonaceae), a new species from Chiapas (Mexico)

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### Abstract

*Coccoloba floresii* is here described as a new species from Mexico. Morphological characters of the leaf, inflorescence, and fruit show discontinuities among populations of *C. floresii* and its relatives, *C. barbadensis* and *C. cozumelensis*. In addition, *C. floresii* is exclusive of the tropical dry forests of Central Depression and Plateau of Chiapas (Mexico) at high elevations.

**Key words:** *Coccoloba barbadensis*, *C. cozumelensis*, Central Depression, Chiapas Plateau, Mexico, taxonomy

### Resumen

Se describe *Coccoloba floresii* como nueva especie para México. Al comparar los caracteres morfológicos de la hoja, inflorescencia y frutos de *C. floresii* se encontraron discontinuidades con aquellos de *C. barbadensis* y *C. cozumelensis*. Además, *C. floresii* es exclusiva de los bosques tropicales secos de las provincias fisiográficas Depresión Central y Meseta Central de Chiapas (México) a elevadas altitudes.

**Palabras clave:** *C. barbadensis*, *C. cozumelensis*, Depresión Central, Meseta de Chiapas, México, taxonomía

### Introduction

*Coccoloba* P.Browne (1756: 209) is the most species-rich genus of the subfamily Eriogonoideae Arn. (Polygonaceae Juss.) (Burke & Sanchez 2011), including about 150 species mainly distributed in the Caribbean The Amazon basin (Howard 1961, Brandbyge 1993). Current taxonomic knowledge of this genus is mainly based on the treatment of Bentham and Hooker (1888: 102) who recognized *Campderia* Bentham [1844, t. 52: 159, *nom. illeg.*, art. 53.1 of ICN (McNeill *et al.* 2012)] as a different genus, while Lindau (1891) treated *Campderia* at section rank of *Coccoloba*. Recent phylogenetic studies clarified the position of *Neomillspaughia emarginata* (H.Gross 1913: 218) S.F.Blake (1921: 85) that is sister to *Coccoloba* (Burke *et al.* 2010, Burke & Sanchez 2011), while none of the previous infrageneric classifications was supported by these studies.

Concerning Mexico and Central America, important works for *Coccoloba* were made by Standley and Steyemark (1946) and Howard (1959, 1992). This latter author recognized 35 species (32 in 1959, plus 3 additional new taxa in 1992) for the Central American flora, 18 of which occur in Mexico. Since then, few taxonomic studies have been done in Mexico, and only the taxonomic work by Ortiz-Díaz (1994) has contributed to a better understanding of this diverse and complicated genus in The Yucatan Peninsula.

From the morphological point of view, *Coccoloba* can be identified by its simple and alternate leaves, well defined ochreae, its achenes surrounded by an accrescent hypanthium and perianth lobes. It is well known, as Howard (1961) pointed out, the number of reliable characteristics useful for identification and classification of the species of this genus are few. The flowers and their parts show little variation. The most taxonomically useful characters to differentiate species are the shape of leaf blades, inflorescences and fruits. This last structure shows different shapes, sizes, and degrees of fusion, so that it is critical-to be observed when it is mature.