



A new species of *Sedum* (Crassulaceae) from northwest Michoacan, Mexico

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Abstract

A new species of *Sedum*, *S. moniliforme* (Crassulaceae) is described and illustrated from the Canyon La Gloria, Municipio Jiquilpan, State of Michoacan, Mexico. The closest morphological affinities of this taxon are with *Sedum longipes* from which it differs through its moniliform or markedly articulate stems with whorled leaves, 3–4 at each node, sepals that are not imbricated at the base, as well as smaller flowers, pollen grains, and sterile rosettes.

Resumen

Se describe e ilustra *Sedum moniliforme* como especie nueva para la ciencia a partir de plantas procedentes de la barranca La Gloria del municipio de Jiquilpan, Estado de Michoacán, México. Las afinidades morfológicas más cercanas de este taxón son con *Sedum longipes*, diferenciándose de esta principalmente por tener los tallos moniliformes o articulados, las hojas en verticilios de 3 a 4, sépalos no imbricados en la base, así como flores, granos de polen y rosetas estériles más pequeñas.

Key words: morphology, succulent plants, scanning electron microscopy, tropical deciduous forest

Introduction

Sedum Linnaeus (1753: 430) is the largest genus of Crassulaceae and nearly half of its diversity is centered in the Americas (ca. 170 sp.; Hart & Bleij 2003, Thiede & Egli 2007). Mexico in particular is rich in species (Clausen 1959, Meyrán & López 2003). Recent detailed explorations of the Canyon La Gloria of Municipio Jiquilpan to update a conspectus of vascular plants of northwest Michoacan have revealed a new distinctive *Sedum* species.

Methods

In addition to collecting of herbarium specimens, living plants of both *S. moniliforme* and *S. longipes* Rose in Britton & Rose (1903: 43) (subsp. *longipes* growing in Temascalcingo, Estado de Mexico and subsp. *rosulare* R.T. Clausen 1959: 199 cultivated as ornamental in Abadiano, Michoacan) were transplanted and cultivated in Jiquilpan, Michoacan for further study. Entire plants were fixed in FAA (Ruzin 1999) for morphological studies or dried in silica gel for DNA extraction. For scanning electron microscopy (SEM), we used hexamethyldisilazane (HMDS) as an alternative for critical dry point (Wright *et al.* 2011). Samples were air dried and coated with 20 nm gold using an Emitech K 550 sputter coater. Micromorphological examination, measurements and pictures were taken at 10–15 kV using a Hitachi SU1510 variable pressure scanning electron microscope. Additional images than those provided in the article have been uploaded in Phytoimages (Nickrent *et al.* 2006 onwards).