Sedum salazarii (Crassulaceae), a new species from Guerrero, Mexico

Authors: Santiago, Jerónimo Reyes, and Zorzano, Omar González

Source: Cactus and Succulent Journal, 83(5) : 236-239

Published By: Cactus and Succulent Society of America

URL: https://doi.org/10.2985/0007-9367-83.5.236

JERÓNIMO REYES SANTIAGO* & OMAR GONZÁLEZ ZORZANO**

Sedum salazarii (Crassulaceae), a new species from Guerrero, Mexico

During a field trip to the westernmost part of the Sierra Madre del Sur of the state of Guerrero, conducted by Gerardo A. Salazar, orchid specialist of the Herbario Nacional de Mexico (MEXU) and his students, several diminutive, live plants of a species of *Sedum* with tuberous roots were collected. These plants were photographed *in situ* (figures 1 and 2), and it was realized immediately that it was an unknown species. The plants were cultivated at the Jardín Botánico, Instituto de Biología, Universidad Nacional Autónoma de México, flowering within a year from the time they were collected. The plants were measured, and the data compared with other species of *Sedum* with a similar type of growth, including *S. jaliscanum*, *S. napiferum* and others that also have tuberous roots. From that comparison we concluded that the Guerrero plants did not belong to any previously described species, being distinctive in their perennial habit (unlike the species of the *S. jaliscanum*

*Jardín Botánico, Instituto de Biología, UNAM, Apartado Postal 70-614, Ciudad Universitaria, 04510, México D. F. jreyes@ibiologia.unam.mx
** Sociedad Mexicana de Cactología, A. C. Apartado Postal 19-090, Col. San José Insurgentes, 03901, México, D. F

1 *Sedum salazarii* in habitat. Photo: G. Salazar. *2* *S. salazarii* growing on a rock. Photo: G. Salazar.

3 Detail of leaf showing the venation of *S. salazarii*. Photo: G. Salazar. *4* Whole plant of *S. salazarii*. Photo: G. Salazar. *5* Tuberous roots of *S. salazarii*. Photo: G. Salazar.

group) and in the leaves having reticulate veining, an uncommon feature in that group. Herein we propose a new species in section *Fruticisedum* of the genus *Sedum*.

Sedum salazarii Reyes et González-Zorzano, sp. nov. Type: Mexico. Guerrero: Puente Mata del Otate, carretera Ciudad Altamirano-Zihuatanejo, 18°00′07″N, 101°10′16″W, 1245 m elevation, collected 19 Nov. 2006, G. A. Salazar, C. Granados & D. Burguete 7432 (Holotype MEXU!).

Herba lithophytica, basi ramosa, erecta, usque ad 30 cm longa, radice tuberosa. Caulis: 1–4 per plantam, atrovinosus, subtiliter papillosus, demum cadens linea abscissionis basi. Folia sessilia, spathulata 23–40 mm longa, 10–17 mm lata, 0.6 mm crassa, glabra, viridia, apice retuso, margo integro. Caulis floralis: 1 per ramam, 3–6 cm longus, 1.5–2.5 mm crassus, 20–40 floribus, inflorescentia paniculata. Bracteae spathulatae 9–14, 8–18 mm longae, 3–10 mm latae; bracteolae inaequales, lineari-lanceolatae, ca. 35 mm longae, 1.2 mm latae, virides; pedicelli 2.4–3 mm longi. Calyx: 5 sepala, adpressa, ascendentia, aequalia 3 mm longa, 1 mm lata, lineari-lanceolata, viridia. Corolla 9.5 mm longa: 5 petala alba, canaliculata, libera, patentia vel ascendentia, 6–6.5 mm longa, 2.5 mm lata, lanceolata, apice leviter apiculato, viridi. Gynoecium: 5 carpella 2.7–30 mm longa, erecta, alba, multis maculis ad apicem, stylo 1.2 mm longo, roseo, stigmate roseo. Androecium: 5 stamina epipetala 4–4.4 mm longa, 5 stamina antisepala 5–5.3 mm longa. Thecae rubrae ante apertionem, postea nigrae, polline flavo. Nectaria lingulata, alba.

Lithophytic, perennial herb branching from the base, erect, up to 30 cm long. Roots tuberous. Stems 1–4 per plant, dark wine red in color, finely papillose, 3.5–6 mm in diameter, abscissing at base upon wilting. Leaves glabrous green, sessile, spatulate, margin entire, apex retuse, veins evident as a reticule, 23–40 mm long, 10–17 mm wide, 0.6 mm thick. Floral stems one per branch, 3–6 cm long, 1.5–2.5 mm in diameter, inflorescence paniculate, with 24–40 flowers; bracts spatulate, 9–14, 8–18 mm long, 3–10 mm wide, bracteoles green, unequal, linear-lanceolate, 3.5 mm long, 1.2 mm wide; pedicels 2.4–3 mm long. Calyx formed by 5 equal sepals, these adpressed and ascendant, green, linear-lanceolate, 3 mm long, 1 mm wide. Corolla 9.5 mm long, with 5 petals, these white, channeled, free, spreading or ascending, lanceolate, apex slightly apiculate and greenish, 6–6.5

6 Detail of flowers of *S. salazarii* in habitat. Photo: G. Salazar. *7* Detail of pedicels and bracteoles of *S. salazarii*. Photo: G. Salazar. *8* Inflorescence of a cultivated plant of *S. salazarii*. Photo: J. Reyes.

mm long, 2.4–2.6 mm wide. Gynoecium with 5 carpels, these erect, 2.7–3.0 mm long, white with many reddish spots near the apex; style 1.2 mm long, pink; stigma pink. Androecium with 5 epipetalous stamens 4.0–4.4 mm long and 5 antisepalous stamens 5.0–5.3 mm long; thecae red before opening, then black; pollen yellow. Nectaries linguiform, white.

Phenology. Plants bloom in October and November.

Distribution and habitat. This species is known only from the type collection. Plants were found living in shallow accumulations of soil in crevices of large boulders along a permanent stream, together with *Peperomia lanceolata*, in riparian semi-deciduous tropical forest with oak and altered tropical deciduous forest on the surrounding hills.

Etymology. The specific epithet honors Gerardo A. Salazar, who has contributed enthusiastically, providing live specimens to the National Collection of Crassulaceae, held at the Jardín Botánico of the Universidad Nacional Autónoma de México.

Sedum salazarii shares some morphological features with annual or bi-annual plants of the *S. jaliscanum* group of section *Epeteium*, such as tuberous roots, spatulate leaves (figures 3–5) and white flowers (figures 6–8). However, *S. salazarii* may be placed, by its perennial habit, thin flat leaves and white flowers, in section *Fruticisedum* (Meyrán & López 2003). This is a diverse group of species not closely related to each other from a cytological viewpoint (Uhl 1980). It is likely that *S. salazarii* is most closely related to *S. tortuosum*, with which it shares features like the inflorescence, size and color of the flowers, and distribution in the Sierra Madre Occidental and Sierra Madre del Sur. However, they differ in the roots, size and habit. *Sedum salazarii* is a lithophytic plant with deciduous stems (figure 9), with only the roots remaining after flowering (figure 10), whereas in *S. tortuosum*, the stems are persistent, losing only the spatulate, thick leaves that lack evident veining.

Acknowledgements

We thank Ray Stephenson, Lawrie Springate, Fernando Chiang, Jorge Meyrán, Julia Etter and Martin Kristen for valuable comments and suggestions on the manuscript, to Javier Caballero Nieto and Graciela Blackaller for their support of the maintenance and study of the National Collection of Crassulaceae.

References

Meyrán G. J. y López Ch. L. 2003. *Las Crasuláceas de México*. Sociedad Mexicana de Cactología, A.C. México D.F.

Uhl, C. H. 1980. Chromosomes of Mexican *Sedum* III. *Rhodora* 82: 377–402.Photo: J. Reyes.

9 Detail of the abscission of the stems of *S. salazarii*; note the fragmentation of the stems after the plant wilts. *10* Detail of the new shoots of *S. salazarii* from the tuberous roots and bases of old stems. Photo: J. Reyes.