

A NEW SPECIES OF CERATUZAMIA FROM SAN LUIS POTOSI¹

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During an excursion to the southern part of the State of San Luis Potosí, in company with Messrs. Elwood Molseed and Myron Kinnach of the University of California, the author collected several specimens of a species of *Ceratozamia* (Cycadaceae) apparently new to science. This is described below.

The completion of this study was made possible by the kind cooperation of the following persons, who supplied valuable taxonomic data: Dr. Reed C. Rollins, Director of the Gray Herbarium; Dr. Rolla M. Tyron, Curator of the same institution; and Dr. Josué Kohashi, a Fellow of the Botanical Museum of Harvard University. For his generous cooperation I make special acknowledgment to Dr. Jerzy Rzedowski, professor of the Escuela Nacional de Ciencias Biológicas in México, D. F. Dr. Rogers McVaugh kindly translated the paper from Spanish into English.

Ceratozamia zaragozæ Medellin, sp. nov. Figs. 1-4.

Truncus 9-20 cm altus, 9-11 cm diam; folia stipulata 20-95 cm longa, 16-43-juga, novella pilosa deinde glabra, interdum ad dextram vel sinistram torta; petiolus semiteres, inermis; rachis teretiuscula, supra bisulcata, inermis; foliola lineari-lanceolata, recta vel leviter falcata, 5-28 cm longa, 3-10 mm lata, insertione 2-5 mm lata, nervis 4-10; strobilus ♂ elongate subcylindricus, apice acutus, mucronatus, 10-20 cm longus, 2-3 cm diametro, pedunculatus; pedunculus inermis 9-14 cm longus, 1 cm diam. basi tomentosus; microsporophylla 8-11 mm longa, 3-6 mm lata; parte fertili cuneata 5-8 mm longa, parte sterili extremitate bicornuta, cornibus inclusis, 2-3 mm longa, truncato-pyramidata, fusco-pruinosa; cornua 0.5-1 mm longa, divaricata vel plagiotropia; strobilus ♀ subcylindricus, mucronatus, 8-12 cm longus, 6-7 cm diam., pedunculatus; pedunculus inermis, cylindricus, ca. 9 cm longus, 1 cm diametro, basi tomentosus, squamae peltatae suborbiculatae vel rhombicae vel transverse subhexagonae, 22-37 mm latae, 20-25 mm altae, glabrae, in medio bicornutae; cornua parvula, erecta; semina plus minus sphaerica ca. 2 cm diam., irregulariter sed prominenter costata.

Trunk ovoid or subcylindric; leaves widely spaced, irregularly twisted; base of the petiole persistently tomentose dorsally, glabrous ventrally; leaflets alternate or subopposite, attenuate at the apex, coriaceous, entire, subrevolute, green, more lustrous and darker in color on the adaxial surface, the nerves somewhat apparent on the abaxial; microsporophylls widest at the line between the fertile and sterile parts; horns of the megasporophylls separated by a rugose area about 1 cm across.

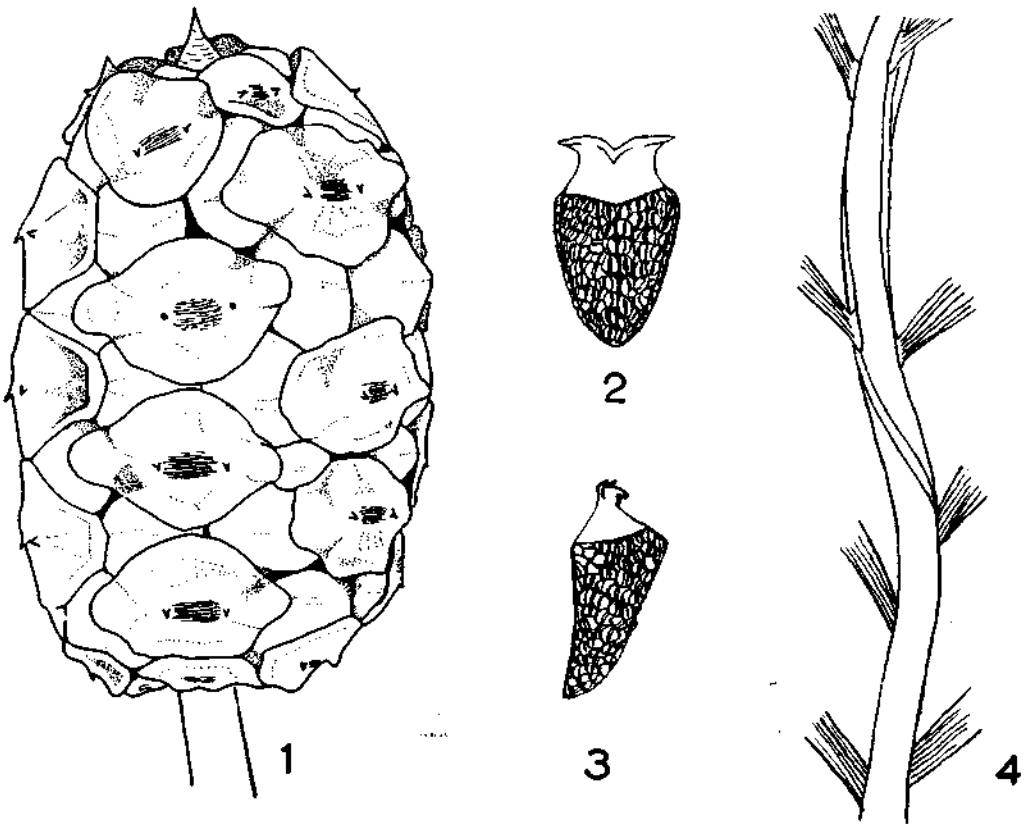
Type: MEXICO: SAN LUIS POTOSI: Pico El Agujón, Sierra de la Equiteria, ca. 30 km s w of Rioverde; rhyolitic hillside in pine-oak woodland, alt. 1800 m, 22 Jul 1962, F. Medellin-Leal 1452 (♀, Herb. Univ. Autón. S.L.P., holotype), Medellin-Leal 1451 (♂, Herb. Univ. Autón. S.L.P.). Isotypes, and isoparatypes, are to be distributed to the following herbaria: GH, MEXU, MICH, US, and

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IPN (the last an unofficial abbreviation for Herbario de la Escuela Nacional de Ciencias Biológicas del Instituto Politécnico Nacional, México, D.F.).

The proposed species shows some affinity with *C. kuesteriana* Regel and with *C. matudai* Lundell. In the size of the leaves and number of leaflets, *Ceratozamia zaragozae* apparently falls within the limits of variability of the other species of the genus, including *C. mexicana* Brongn. from which it seems to be sufficiently distinct. It differs notably from all other species in being quite unarmed, in the irregular but consistent twisting of its leaves, the very small size of the horns, the irregular scales of the fertile strobilus, and the almost spherical seeds.

The species is dedicated to General Ignacio Zaragoza at the first Centennial of his glorious deeds in defense of the national sovereignty.



FIGS. 1-4. *Ceratozamia zaragozae* Medellín. FIG. 1. Fertile strobilus, $\times\frac{1}{4}$. FIG. 2. Microsporophyll, ventral view, $\times 3$. FIG. 3. Microsporophyll, lateral view, $\times 3$. FIG. 4. Part of the leaf showing twisting of the rachis, $\times\frac{1}{4}$.