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Ken Heil
San Juan College, Farmington, New Mexico

Stanley L. Welsh
Brigham Young University

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NEW SCLEROCACTUS (CACTACEAE) FROM NEVADA

Ken Heil1 and Stanley L. Welsh2

ABSTRACT.—Named as new is Sclerocactus schlesseri Heil & Welsh. The taxon is described and its relationships discussed.

During the summer of 1981 a peculiarly adapted population of Sclerocactus was discovered by cactus enthusiast Dr. David Schlesser in the southeastern quadrant of Nevada, growing on a peculiar, Tertiary lacustrine deposit. The substrate consists of sandy silts to silty clays and appears on the surface to be somewhat gypsiferous. Vegetation in the region consists of typical salt desert shrub community, with galleta (Hilaria jamesii) as the main perennial grass component. The long, ribbonlike, uppermost central spines simulate the leaves of the galleta, and the stems are difficult to discern among the grassy areas between the shrubs.

The plants occur singly or in small clumps. General aspect is that of Sclerocactus whipplei in a broad sense, but the stem diameter of the plants examined is not as great (4–8 cm, not 5–15 cm), flowers average smaller (3–4 cm, not 3.5–5 cm long), and the spines are densely pubescent, at least when young. The pubescent spines and characteristic flattened upper central spine approaches the condition found in S. pubispinus of the nearby Great Basin. The flowers average larger than in S. pubispinus (3–4 cm, not 2.5–3.5 cm) and the upper central spine is longer (3–5.5 cm, not 0.5–3.5 cm). The locality is intermediate between that of S. pubispinus and S. whipplei var. roseus as interpreted by Welsh (1984). A specimen of the latter was taken along the Virgin River west of Bunkerville, Nevada, by N. D. Atwood (7821b BRY) in May 1981. A locality for S. whipplei (as S. parviflorus var. intermedius) is mapped from Iron County in southwestern Utah by Benson (1982).

Although some features of the plant discovered by Dr. Schlesser are intermediate between S. whipplei and S. pubispinus, there are some features that are evidently unique. The narrow stems suggest a parameter that is not shared by the two close geographical congeners. Because of the discordant as well as intermediate features the plant is named as follows:

Sclerocactus schlesseri Heil & Welsh sp. nov. Persimilis Sclerocacto whipplei (Engelm.) Britt. & Rose sed in caulibus angustioribus (4–8 cm nec 5–15 cm), floribus minoribus (3–4 cm nec 3.5–5 cm), et spinis pubescentibus differt, et similis Sclerocacto pubispino (Engelm.) L. Benson in floribus majoribus (3–4 cm nec 2.5–3.5 cm) et spinis superioribus centrals differt.

Stems dark green, typically solitary, ellipsoid to obovoid, 3–10 (14) cm tall, 4–6 (8) cm wide; ribs 13; tubercules 12–18 mm wide, 8–10 mm long; areoles woolly, finally glabrate; spines flexible, densely pubescent when young; upper central spine 1, ascending, flat or trigonous, ribbonlike, curved, cartilaginous to bony, pubescent to glabrous, 3–5.5 cm long, 1.25–2.5 cm wide, reddish brown to white; peripheral central spines 2, ascending, flat, ribbonlike, sometimes hooked, pubescent, 2–3 cm long, 0.5–1 mm wide, black to white; lower central spine 1, ascending, flexible, irregularly hooked, pubescent, 2.5–4.5 cm long, to 1 mm wide, black, gray, tan, or white; radial spines 6–9 (12), flattened, flexible, pubescent, 3–14 mm long, white; flowers apical on upper end of the tubercules near the top of the areoles and above the spines, fumelliform, 3–4 cm long, 2–3 cm wide, violet pink; sepaloid perianth parts oblanceolate, finely irregularly toothed apically, mucronate, violet pink with brown-

1Department of Biology, San Juan College, Farmington, New Mexico, 87401.
2Life Science Museum and Department of Botany and Range Science, Brigham Young University, Provo, Utah 84602.

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ish midstripes, 1.5–2 cm long, 6–10 mm wide; petaloid perianth parts oblanceolate, entire or slightly undulate, minutely toothed apically, violet pink, 1.5–2 cm long, 4–5 mm wide, filaments red, anthers yellow; stigma lobes 7–9, light green; fruit dry, barrel shaped, naked or with 1 or 2 scales, 1–1.5 cm long, 9–13 mm wide, red to greenish red, dehiscing by a transverse break in the ovary wall, the perianth persistent; seeds 2 mm long (hilum to point opposite), 3 mm wide, ca 1 mm thick, pyriform with slightly flattened apex, shiny black, papillate, becoming less so near the hilum; hilum elliptic, 1 mm wide.

Type.—USA. Nevada. Lincoln County, Tertiary lacustrian deposit at ca 1,464 m in salt desert shrub-grass community, 16 June 1983, K. Heil s.n. (Holotype BRY; isotype NY).

Literature Cited