

***Sclerocactus mesae-verdae* (Boissevain ex Hill & Salisbury) L. Benson**
Mesa Verde Cactus

Family: Cactaceae **Synonyms:** *Coloradoa mesae-verdae* Boissevain ex Hill & Salisbury

NESL Status: G2

Federal Status: Listed Threatened (44 FR 62471 62474)

Plant Description: Stems are mostly solitary, sometimes in clusters, ovoid to depressed-globose, 3 – 11 cm long, up to 10 cm in diameter; ribs 13 – 17; central spines absent or rarely one; radial spines 7 –13, straw-colored, spreading, 6 – 13 mm long; flowers yellowish-cream to pinkish, 1 – 3 cm wide, 1 – 3.5 cm long; fruits tan at maturity. Flowering occurs from beginning of April to early May.

Similar Species: *Sclerocactus parviflorus* ssp. *intermedius* has strongly hooked central spines and pink-purple flowers.

Habitat: Mesa Verde Cactus grows in clay-rich soils derived from the Fruitland and Mancos shale formations. It also grows in Menefee Formation soils near Sheep Springs, NM, but in that case the plant is rooted in Mancos Shale, which closely underlies the soil surface. **Soil surfaces within appropriate habitat can have a cover of gravel or cobbles ranging from 0% to 100%. Gravel composition is variable, and can be igneous or sedimentary in origin. The key to appropriate Mesa Verde Cactus habitat seems to be the underlying clay soil, and is independent of any overlying cover of cobbles or gravel (see photos below).** Plants are frequently found on the tops of hills or benches and along slopes. Vegetative cover in Mesa Verde Cactus habitat is low, usually below 15%. The species occurs in salt-desert scrub communities, and is commonly associated with mat saltbush (*Atriplex corrugata*) and Gardner's saltbush (*Atriplex gardneri*). Known populations occur between 4,900 to 5,500ft.

General Distribution: San Juan Co, NM, and adjacent Montezuma Co, CO.

Navajo Nation Distribution: Colorado border south to near Naschitti, NM.

Potential Navajo Nation Distribution: Within the known distribution to the north, south, and west. The eastern limits are still unclear.

Survey Period: Surveys are only acceptable during the flowering & fruiting period from April through May. Suitable habitat can be identified year round.

Avoidance: A 200 ft. buffer zone is recommended to avoid disturbance; may be more or less, depending on slope, size, and nature of the project.

Comments: This species has been severely impacted by drought and subsequent predation by insects. Population levels declined to an all-time low between 2002 and 2004.

References:

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- New Mexico Rare Plant Technical Council. 1999. New Mexico Rare Plants. Albuquerque, NM: New Mexico Rare Plants Home Page. <http://nmrareplants.unm.edu> (Latest update: 18 January 2006).
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- USDI Bureau of Land Management. 1995. The Farmington District Endangered, Threatened, and Sensitive Plant Field Guide. Prepared by Ecosphere Environmental Services, Inc., Farmington, NM.
- U.S. Fish & Wildlife Service. 1984. Mesa Verde Cactus (*Sclerocactus mesae-verdae*) recovery plan. U.S. Fish & Wildlife Service, New Mexico Ecological Services Field Office, Albuquerque, NM.



Mesa Verde Cactus in flower

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“Classic” Mesa Verde cactus habitat

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Mesa Verde Cactus habitat near Cudei, consisting of river cobbles overlying shale-derived soil. There is a population of Mesa Verde Cactus surrounding the black camera case.



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Mesa Verde Cactus in soil overlain with river cobbles. Cacti are circled in red.
Photo taken in August, 2012.



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Mesa Verde Cactus growing in shale-derived soil overlain by gravel. Photo taken in August, 2012.