Soil Catenas and Ecological Site Correlation in Riparian Corridors of Capitol Reef National Park, Utah

Although occupying a small percentage of the total area of Capitol Reef National Park, soils in riparian areas occupy unique environments in the arid climate of the Colorado Plateau and have historical importance for cultivation by pioneer settlers. Before settlement by Europeans, Native Americans used the area extensively and created irrigation ditches for agriculture along the Fremont River and Sulphur Creek near present-day Fruita. Because of their unique landscape positions and association with water, many of the riparian soils in Capitol Reef are not found elsewhere on the Colorado Plateau. Five new soil series were created for the Soil Survey of Capitol Reef National Park; three soils are on the irrigated stream terraces of the Fremont River in Fruita, and two occur in other riparian areas throughout the park. These soils occupy a predictable pattern on the landscape associated with drainage and flooding catenas in the perennial, intermittent, and ephemeral waterways found in Capitol Reef. Several new riparian ecological sites were also developed for the riparian areas that occur within the park.