

Cryptobiotic Soil: Our Natural Desert Treasure

Keep a watchful eye, and don't bust the crust!

Cryptobiotic soil is the glue that holds the desert together. It gives plants a safe sturdy place to grow. Biological soil crusts under a shrub or bush provide shelter from the sun and the wind as well as water erosion. It is important not to disturb the crust with leaf blowers or vehicle tires or even trampling the fragile soil.

Soil crusts that appear to be dried out seem to come alive when doused with water. Dry and grey when found, a sprinkling of water causes it to become metabolically active again.

Cyanobacteria convert atmospheric nitrogen to a form plants can use. This is especially important in desert ecosystems, where nitrogen levels are low and often limit plant productivity. Soil crusts also trap and store water, nutrients, and organic matter for use by plants.

What You Can Do

Drive and ride on designated roads and trails and steer clear of roadside vegetation. Blowers and raking around Joshua Trees, creosote and other plants also disturb the fragile crust. When hiking, walk on marked trails or other durable surfaces, such as rock or in sandy washes.

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Adapted from an article by JTNP Acting Superintendent Jane Rodgers: <https://www.nps.gov/jotr/learn/nature/cryptocrusts.htm>.