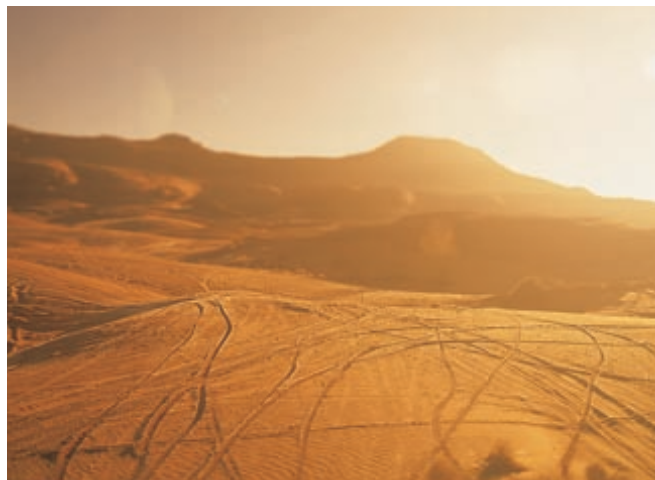


Desert Gem

In southeast Utah an incongruous oasis has survived centuries of intense sun and wind. It's less clear that it can survive an onslaught of off-road vehicles.

By Kurt Repanshek/Photography by Chip Simons



Water-loving cottonwoods (left) are found in Utah's White Wash Dunes—where there is no apparent water. The site is popular with all kinds of off-roaders.

Utah is famous for its deep amber canyons and mountains of downy snow, not hilly sands. And yet on a warm June evening I find myself standing at the crest of a salmonberry-hued dune, listening as laughter cascades down the mound's leeward side. It grows from giggles into waves of hilarity as three youngsters roll like logs down to the bottom, where they come to a halt on an exposed shelf of ruddy Entrada sandstone.

For the sand-soaked boys, the White Wash Sand Dunes constitute perhaps the largest sandbox they have ever seen, and for now the dune field—a half-mile wide and two and a half to three miles long—belongs solely to them. The boys are having too much fun to fully appreciate the distinctiveness of their playground.

As its name implies, the small dune complex I find 13 dusty miles down a bumpy two-track from the town of Green River in southeast Utah is associated with a wash. But this wash, a talc-dry bed of sand and pebbles that meanders this way and that, is seldom confused with one filled with water. It spends more time dry than wet, generally filling only when thunderstorms send water its way, most typically in September and October. White Wash Sand Dunes is a high-desert conundrum. Instead of the usual cactus sprouting out of its parched, sandy flanks, there are leafy Fremont cottonwood trees and willows, two of the thirstier tree species you'll ever find—along with sprays of primrose, wispy rice grass, and fragrant purple sage. The cottonwoods are tall, century-old specimens, standing in groups as well as solitary trees. Their thick trunks and spreading limbs, twisted, gnarled, and contorted by winds and time,

would seem more at home in an enchanted forest than here in arid sand dunes.

The problem is that where ecologists see a rare, unique ecosystem, off-road vehicle (ORV) riders see a thrilling playground. For years the Bureau of Land Management (BLM), which oversees White Wash Sand Dunes, has tried straddling both sides. "A special feature of the dunes is the cottonwood trees that grow interspersed among the dunes," reads the sign to their entrance. "These trees rely on underground pockets of water. Please avoid these trees while enjoying the dunes. White Wash and its sand dunes are open to cross-country motorized travel. However, care should always be exercised in order to be safe and to protect the area for future enjoyment."

But it has become increasingly apparent that preservation of the ecologically rich dunes is at odds with unfettered ORV access. Last August the BLM released a draft resource management plan (RMP) for the 1.8 million-acre Moab District that encompasses the dunes. The RMP claims to bring a measure of control and balance to recreation and energy development within the district. One alternative proposes restricting motorized travel in White Wash and managing

the area to protect the dunes' ecological and scenic values, with an emphasis on preserving the unusual stands of cottonwood trees, water sources, and bighorn sheep habitat. But the BLM's preferred alternative would designate nearly 1,900 acres, including the dunes themselves, as the massive district's only cross-country play area for ORVs. It wouldn't take much to overrun the dunes complex. A final management plan is due out early this summer. "We're trying to satisfy a lot of different things here," says BLM project manager Brent Northrup, who is overseeing the process. Still, he acknowledges that the agency's preferred alternative is "beneficial" to ORV users and "not necessarily the environment."

So far the efforts of the Southern Utah Wilderness Alliance, or SUWA (www.suwa.org), to ensure that the BLM safeguards White Wash have made little headway. "BLM continues to turn a blind eye to this rare desert gem," says Liz Thomas, the group's Moab field attorney. "Rather than protecting even a portion of the dunes for scientific study, it appears that the agency will sacrifice the entire dune system to unrestricted, and unmanageable, motorized recreation."

On the night and day I visit, no ORVs are plying the dunes' flanks or twisting doughnuts in the wash bed. The dunes are always moving thanks to "deflation," the action of sand being deposited again and again and again by the winds. Japanese Zen gardens come to mind as I hike the dunes, now honey-hued under

Currents

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the early morning sun, before the winds rise. Dainty tracks of objects that skittered in the night have been captured in the sand. Delicate sketches, made by ground-scraping vegetation pushed by the breezes, will remain until the next windstorm.

More substantial tracks, created by motorized vehicles, last longer. In places they climb to the tops of dunes where the machines were launched into a short free-fall. Some cottonwood roots have been laid bare, crushed, torn, and frayed by knobby tires. Elsewhere, solitary trees have become maypoles around which ORVs circled in play, effectively creating tiny islands in this waterless landscape.

Charles Schelz, an Arizona-based ecologist who explored the dunes with me, is dismayed by the extent of the damage. Within the wash's bed itself he points to where machines have flayed a type of juncus grass that would normally form a mat across the wash bottom. That creates problems when flash floods do come. Normally the grasses would slow the waters, broaden the flood plain, and encourage sedimentation. Minus the vegetation, the floods scour a deeper, narrower channel, he explains. "Whenever [ORVs] cut corners, that's where it's going to have a big impact during a flood," says Schelz, a private consultant who has worked with the National Park Service, the U.S. Forest Service, and The Nature Conservancy. "The floodwaters will jump onto the tracks the ATVs make and then it gouges out everything between the channel and the track."

Scientists estimate that White Wash most likely formed during the Pleistocene epoch, somewhere between 50,000 and 1.8 million years ago. The area's building blocks, however, no doubt went back much further. When the Jurassic age embraced Utah 210 million years ago, much of the landscape was a gigantic sandbox, buried in places with 2,000 feet of sand. Ergs, as these towering dune systems are known, shuttled back and forth, rising up here while being blown flat there by the winds. Time eventually morphed them into mountainous domes and colorful reefs of Navajo, Entrada, Kayenta, and Wingate sandstones.

But once again time and the elements steadily, if not as slowly, deconstructed these formations and broke them back down into fine particles of sand. Then came westerly winds that, like some giant fans, whipped up the sand grains from the San Rafael Desert and carried them eastward. After hurdling



Motorcycle and all-terrain vehicles leave tracks that scar the landscape long after the riders have left.

the Green River the sands dropped from the sky when the breezes collided with sandstone formations near present-day Duma Point. And there, just east of the river, the White Wash Sand Dunes came to be.

How long cottonwoods and willows have risen above the dunes is hard to say, although Schelz speculates that the current stands of cottonwoods have been here at least 100 years. How they get their nourishment is another puzzle. There are also cottonwoods in Great Sand Dunes National Park, in eastern Colorado. But those trees grow in riparian areas fed by streams flowing out of the Rockies and next to interdunal ponds. At White Wash there are no perennial streams to feed the trees, which seem to be actually growing out of the dunes and not from a more formidable, and possibly wetter, underlying substrate. Perhaps, Schelz suggests, the dunes' sandstone underbelly acts as a sloping, impermeable barrier that funnels groundwater absorbed in to the rocks in the surrounding area and as far as miles away back into the dunes, which then sop it up much as a sponge would. Whatever the source, he adds, these tree-studded dunes are an anomaly. "Although other dune systems contain cottonwoods and other trees, this arrangement is rare, especially so when considering that the cottonwoods and willows grow on top of the dunes," says Schelz. "In other systems the trees and shrubs were already estab-

lished and the dunes formed around them in separate and underlying soil."

Crossing the dunes, setting off mini-avalanches of the fine-grained sand, Schelz comes across trees that have been sawed or axed by ORV wood gatherers. Some stands bears evidence of trees being girdled so they'd die and their wood dry out in time for the next year's play. The firewood feeds campfires that from time to time throughout the year dot a flat above the wash. In spring and fall, on Easter and Thanksgiving weekends, and anytime the heat or cold aren't too intense, the flat is a launch point for ORV and dirt-bike enthusiasts lured to the dunes.

As Schelz strides across the dunes, he pauses from time to time to bend over sprouts of vegetation. Here are fragrant clumps of purple sage, pale evening primrose, and rice grass, a hardy, drought-resistant plant. The dunes, he says, are basically an "ecotone," a transition zone between two different vegetative communities. Such areas, says Schelz, "typically contain higher species diversity than the surrounding communities because you get a mix of the areas." Then he turns to admire the cottonwoods, which dwarf his 6-foot-4-inch frame. "White Wash Sand Dunes is a unique environment," Schelz says. "And to me, that's a reason to protect it." ■

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