The Fight to Save Saguaros

This young saguaro took 15 years to grow to this size. Overwhelmed by buffelgrass, it doesn't stand a chance of surviving a wildfire.

Saguaro National Park is located in the scenic southwest Sonoran Desert. Today, visitors from around the globe are drawn to the park's iconic southwestern landscape, characterized by the park's namesake, the regal saguaro cacti. Yet the park's landscape and the plants and animals that depend upon it for their existence, are becoming increasingly threatened by buffelgrass (*Pennisetum ciliare*), an invasive grass from Africa. Buffelgrass was introduced with the best of intentions, primarily to increase forage for livestock and for erosion control. In recent years, buffelgrass has spread exponentially across southern Arizona. It has the potential to dominate the natural landscape of the park and surrounding areas in less than a decade. The National Park Service can't afford to wait and watch this happen. To preserve and protect its namesake and its unique habitat, Saguaro National Park is fighting back.

The Problem

Buffelgrass, listed as a state noxious weed in 2005, is spreading rapidly across Arizona's deserts and poses an immediate threat to the integrity of the Sonoran Desert. Buffelgrass alters natural ecological processes of the desert ecosystem, competes with and excludes native plants, reduces critical habitat for unique desert wildlife, and introduces fire into the ecosystem.

Buffelgrass and the ensuing threat of fire are a concern not only to the park but other land management agencies such as the US Forest Service, Bureau of Land Management, and Arizona State Parks. In addition to expanding into natural areas, buffelgrass has invaded the City of Tucson and neighboring communities, carrying fires into the wildland-urban interface where they threaten lives, homes, and businesses.

Saguaro National Park estimates approximately 2,000 acres within the park have various stages of buffelgrass infestations, primarily in remote, pristine wilderness areas, across rugged terrain. Infestations are growing in acreage and others are filling in, becoming denser and merging. Current projections suggest buffelgrass infestations are spreading approximately 35 percent per year. Many scientists believe that local extinctions of saguaros will occur and the Sonoran Desert vegetation and wildlife will be changed forever.

Dense stands of buffelgrass (left) fuel devastating wildfires (top) that destroy saguaros (bottom) and other native plants and wildlife like the desert tortoise (middle).

Fire in the Sonoran Desert

Fires are infrequent in the Sonoran Desert. When natural fires do occur (about once every 250 years), they are small and short lived because they are unable to spread through the sparsely dispersed native vegetation. Buffelgrass can produce two times more fuel than native vegetation and promotes intense wildfires that burn hotter and faster than native vegetation, and over larger areas through thick continuous infestations. Many desert species, including the giant saguaro cactus, desert tortoise, and gila monster are damaged or killed by fire.

The Partners

Over the past few years local, regional, and national media have helped spotlight the buffelgrass crisis.

On February 9, 2007, more than 120 representatives from state and federal agencies, county and municipal governments, academia, and private conservation organizations from across Southern Arizona joined concerned citizens at the Buffelgrass Summit.

This diverse group worked together to develop a Southern Arizona Buffelgrass Strategic Plan, completed in February 2008.

Public outreach campaigns aim to create awareness and generate volunteer support.

A healthy forest of saguaro cacti.

A non-profit Southern Arizona Buffelgrass Coordination Center has also been established to coordinate treatments and planning across jurisdictional boundaries, improve volunteer opportunities, and increase public awareness about the implications of buffelgrass.

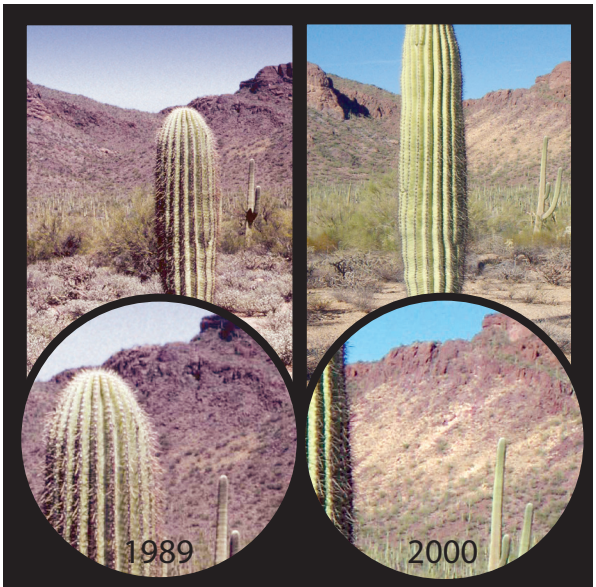
With each passing year, the cost to control buffelgrass increases as does the loss of Sonoran Desert vegetation and wildlife. Additional resources and funds to support education and control efforts are still needed to implement the plan and address the crisis.

The Need

Saguaro National Park uses a variety of methods to control buffelgrass, including hand pulling and herbicides. Hand pulling the grass is substantially more expensive and strenuous and may not always be effective. Despite ongoing efforts, increased and continued support is urgently needed.

Buffelgrass control is difficult, but it is not impossible. New and innovative technologies are available that will give the park a fighting edge. Saguaro National Park is joining forces with the US Forest Service and other cooperating agencies to develop cost effective control programs and maximize efficiencies.

Ongoing funding and support for personnel, equipment, supplies, education, mapping, and research will help ensure that buffelgrass can be controlled before it impairs the park and its natural resources. Only with this support will the saguaro, the national icon of the desert southwest, stand tall.



Rate of Infestation

A photo taken in 1987 shows a small patch of buffelgrass first getting established in the background slope. Thirteen years later a photo from the same perspective not only shows the slow steady growth of the saguaro in the foreground but also reveals an entire mountain side dangerously infested with buffelgrass.

Buffelgrass invading the unique & complex Sonoran Desert ecosystem.

It is important to understand that each area treated requires two to four years of sustained effort to eliminate the vast quantities of viable seeds that remain in the soil.

To learn more about buffelgrass, visit:

Southern Arizona Buffelgrass Coordination Center
www.buffelgrass.org

Buffelgrass podcast
www.npca.org/media_center/podcasts/saguaro.html

Buffelgrass fuel loads in Saguaro NP increase fire danger and threaten native species
www.nature.nps.gov/ParkScience/index.cfm?ArticleID=44

Saguaro National Park
www.nps.gov/sagu