Sonoran Desert Conservation Plan Newsletter

"To ensure the long-term survival of the full spectrum of plants and animals that are indigenous to Pima County through maintaining or improving the ecosystem structures and functions necessary for their survival."

September 2010

Bats!

NRPR biologists Iris Rodden and Don Carter recently completed a bat survey in the historic Raul Grijalva Canoa Ranch Conservation park buildings. Some of the historic buildings are undergoing or are slated for active restoration and the team wanted to make sure that resident bat colonies were using alternative habitat. Sizable colonies of pallid bats were located and steps have been taken to ensure they are minimally disturbed during the renovation process and that additional new habitat spots are constructed on site to potentially mitigate any lost habitat resulting from the restoration process.

Pallid bats roosting on the ceiling of the blacksmith's building at Canoa Ranch. Photo by NRPR staff.

Pallid bats in an adobe crevice in Canoa Ranch building. Photo by NRPR staff.

The Learning Center of the American Southwest

The Sonoran Institute with several other partners have launched the Learning Center of the American Southwest, a web site that delivers information about the natural and cultural resources of the region and about scientific activities underway. The primary focus of the Learning Center is to explain the need for and results of research and monitoring to land managers, students, researchers, policy makers, and the interested public and promote mission-oriented research within the region. Forty-eight parks and protected areas spanning seven states comprise the Learning Center. Learn more about the cultural and natural resources of the American Southwest by exploring the links on the left or go directly to one of the parks and protected areas.

The Fight against Buffelgrass

Pima County, in cooperation with other land management agencies and research organizations, conducted a test of use of aerial application of a common herbicide to control the exotic invasive species of grass, buffelgrass, on steep rugged slopes in Tucson Mountain Park. The initial application of the herbicide in the controlled research project was completed on August 18. Complete background on the test and research project can be found at Buffelgrass.org.

Blue dye sprays from nozzles during application in Tucson Mountain Park. Photo by NRPR staff.

Initial review of the site by the research team shows that the test was very successful and the buffelgrass shows significant die back and little or no impact on the native vegetation 6 weeks after spraying. The GPS computer controlled application stayed within designed plot boundaries as predicted. Additional tests are being run on actual drift, actual herbicide delivery concentrations and impact on native plants. Preliminary results from the trials will be available soon, but Pima County and our cooperators plan to conduct follow-up monitoring for the next two years.

A spray ball, attached to helicopter, can deliver herbicide to a very small area in rugged terrain. Photo by NRPR staff.

After the TMP helicopter boom spray test, additional tests in early September were conducted using just water and dye on areas in the Ironwood National Monument by BLM. A variety of spray ball delivery systems were tested. Each had some good points and some problems in the rugged desert environment. In general the spray ball technology that has been used effectively in Hawaii and Florida for invasive plant control efforts within national Parks has potential in buffelgrass control. The spray ball looks to be a more effective tool for small plant invasions in rugged canyons and steep hillsides. Spray can be delivered to as small as a 5 sq. foot area.

Ultimately, these control tools may be proposed for use in the Tucson basin by the agencies involved in the testing, but will involve further public meetings and environmental review before actual application.

Grassland Restoration

NRPR will be working closely with Nature Conservancy staff on grassland restoration projects in the Cienega Creek watershed and adjacent to the county open space lands at Sands and Clyne ranches near the Whetstone Mountains. Of primary focus will be identifying places where past land use activities such as roads, livestock gathering areas and artificial waters and natural water movement have begun noticeable erosion. The two groups along with other land management agencies will partner to pool limited resources to heal past wounds on the land and prevent future problem areas to maintain healthy and complex ecological functions, flora and fauna in the basin.

Sands Ranch. Photo by NRPR staff.

Open Space Acquisitions
Pima County has acquired nine acres of community open space near Mission Road and the San Juan Wash. The land is downstream from the Habitat for Humanity parcels also acquired by the County for open space, and across Mission Road from the County-owned West Branch property. The new acquisition is a popular recreation area for neighbors and helps to keep the riparian vegetation intact in and out of the San Juan Wash, a tributary of the West Branch.

News from Environmental Education
Sonoran Desert Kids celebrate the bounty of summer while netting butterflies during the club meeting at Agua Caliente Park. Each month the SD Kids (children age 8-12) gather at Agua Caliente Park for a morning of exploration, hands-on science, and nature crafts. Prickly Pear Harvest was the main event for the August Outdoor family Days. Working in family units everyone had a chance to pick cactus fruits and process the juice for a refreshing prickly pear fruit punch.

Netting butterflies at Agua Caliente Park. Photo by NRPR staff.

Two dozen volunteers will complete their training to make Living with Urban Wildlife presentations to the public and to staff the mobile Living with Urban Wildlife exhibit at large events. The public opening of the Living with Urban Wildlife Mobile exhibit will take place at Tucson Meet Yourself, Oct 8-10.

The new Living with Urban Wildlife trailer. Photo by NRPR staff.

Phase II Monitoring Plan Available Online
The August issue of the newsletter discussed the completion of the Phase II ecological monitoring plan. That plan is now available online at: http://www.pima.gov/cmo/sdcp/Monitoring/index.html . Please send comments to Brian Powell (brian.powell@pima.gov).