

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."

April 2011

Tortoise Study

Pima County is looking for information to improve its model of potentially suitable habitat for the Sonoran desert tortoise. We are interested in observations of live or dead tortoises. Observations will be used to refine the assumptions of the model.



Illustration by Bill Singleton

If you are willing to contribute locations where you have observed a wild tortoise, please visit Arizona HerpCount (www.herpcount.org). HerpCount observations will require latitude, longitude, a photograph and a date. If you would prefer to contribute location data to Pima County directly, please email Neva Connolly at conservation@pima.gov.

Leopard Frogs

Pima County Service to survey lowland leopard frog is a species on which occurs from throughout the low



Illustration by Bill Singleton

lowland leopard frog is now restricted to small, often isolated populations in mountain canyons. The Rincon/Catalina mountain complex represents some of the best remaining habitat in southern Arizona.

recently received a grant from the National Park lands in the Catalina and Rincon mountains for the frog (*Lithobates yavapaiensis*). The lowland leopard concern in Pima County and throughout its range, central Arizona into northern Mexico. Once common elevation stream systems of southern Arizona, the

Though considerable monitoring work has been conducted in Saguaro National Park, the remainder of the Rincon/Catalina complex has either never been surveyed for the species or surveys have not taken place in many years. The recent discovery of a population of lowland leopard frogs on County-owned lands in the Catalina Mountains renewed interest by the County to survey these areas to better understanding the location and size of other populations within the Rincon/Catalina complex. These data will allow Pima County, the U.S. Forest Service, and the National Park Service to work together to monitor and manage these critical populations to ensure their long-term persistence.

Surveys will take place September through November. For more information, please contact Brian Powell (brian.powell@pima.gov) at the Pima County Office of Sustainability and Conservation.



Cienega Creek Headcut Report

The Pima Association of Governments (PAG) Watershed Planning Program finalized a grant-funded study that evaluated the impacts of headcuts on the hydrology and riparian habitat of the Cienega Creek Natural Preserve. In 1999, PAG and other researchers had identified several headcuts developing along Lower Cienega Creek. At the time of the grant proposal, one headcut had migrated over 1,200 feet upstream and had entrenched five feet deep by 20 feet wide, within a 5-year time frame. The impacts of the large headcut on aquatic habitat and riparian resources needed to be studied to know if this was a natural process of equilibrium of sediments, or if it was a threat to the habitat, before natural resource managers could decide if action was necessary.

The results of the study showed that the headcut had an effect on slope of the water table, surface flow, and density of vegetation cover, among other aspects of the study. For more details on the study and results, please see the final report [here](#).

Pima County Historic Preservation Program: Conservation Areas

Work continues on the County's bond-funded Open Space acquisitions and Conservation Easements for historic and archaeological preservation, with a recent focus on completing detailed mapping and GIS projects for several Conservation Areas. These preserves contain historic and archaeological sites identified in the Cultural Resources Element of the SDCP as Priority Cultural Resources, considered the "last of the best" heritage resources in the County to be protected and preserved for the education and benefit of present and future citizens of Pima County.

Several archaeological mapping and geodatabase projects are underway, developing information that will be used to provide important tools to assist County management and planning efforts to conserve and interpret these resources. Two strategies are being pursued, depending on the nature and vulnerability of the resources, with conservation foremost in both. Several Conservation Areas that are especially vulnerable to impacts from increasing urban recreation pressures will be conserved, but they are too sensitive to be open to public access. Other cultural resources will be protected in Conservation Areas that will be open to public access as educational preserves interpreting the history and archaeology of Pima County. In addition, all County Conservation Areas preserve the natural environment and its resources as Open Space Preserves.

Currently, work is nearing completion on developing natural and cultural resources information for the historic Old and New Pantano Townsites, in the Cienega Creek Natural Preserve east of Tucson. Maps and geodata are being adapted for a restricted access version of MapGuide for use by authorized County staff in preservation management and interpretive planning. Similar projects are underway to develop geodatabases to protect and interpret other important historic and archaeological sites, including the Valencia archaeological site and Tumamoc Hill, both in the City of Tucson, and the Coyote Mountains, in rural Pima County southwest of Tucson. When complete, these GIS databases will be added to the current inventory of GIS-based planning tools for the Los Morteros archaeological site, in the Town of Marana, and the Dakota Wash archaeological site and historic Fort Lowell Park, in the City of Tucson. We hope to complete future GIS projects at other County Conservation Areas, such as the Honey Bee Village archaeological site in the Town of Oro Valley, and historic Canoa Ranch, near Green Valley.

Environmental Education Activities

Join biologist Audrey Owens at Brandi Fenton Park for a presentation on the Ornate Box Turtle Watch program. Ms. Owens will present information on box turtles in southeastern Arizona, and how to become a Citizen Scientist for the Arizona Game and Fish Department. For information on this presentation and more EE events, please see the Public Programs brochure [here](#) for more information.

