**Introduction**

The City of Scottsdale, Arizona, established a large urban preserve of more than 30 thousand acres called the Scottsdale McDowell Sonoran Preserve. The Preserve has two major parts: Brown’s Ranch in the north and the McDowell Mountains in the south. These two large pieces are connected by a narrow corridor which is intended to provide permanent, undeveloped passage for animals moving between the two larger areas and adjacent protected lands. Impediments to the free passage of the animals are the narrowness of the corridor, suburban development on both sides of the corridor and a high-speed roadway that bisects the land. Our objective is to use Citizen Scientists to determine the viability of this corridor for wildlife movement between the major Preserve parcels.

**Methods**

Our Wildlife Corridor Viability project uses an array of motion-activated trail cameras and established photo processing techniques\(^1\) to estimate populations of selected species. Our study area ranges from the north end of the McDowell Mountains to the boundary of the Tonto National Forest, a total north-south distance of almost nine miles.

The field work is an exacting series of routine tasks. Cameras must be
- Set properly to established sensitivity, numbers of pictures taken, reset period and correct date and time, among other choices.
- Turned on and double checked in the “on” position.
- Attached to a metal pole or suitable vegetation and fixed in position using the locking device and a strap.

Once exactly placements for the individual cameras are determined, all of the routine field work is performed by trained Citizen Scientists. The project currently has 18 cameras in the field that are periodically visited by Citizen Scientists to exchange SD type data cards and renew batteries.

The presence in the study area of certain species, such as mountain lions, two kinds of skunks and grey foxes, have been clearly documented. Although seen before, results show badgers are more common and have a larger range than previously thought.

**Field Work**

Once the pictures have been properly reviewed and sorted into folders, we double-check to ensure the database has the correct four level architecture using DOS program “Data Organize.”\(^2\) The results of this check are fed into a simple DOS compilation program called “Data Analyze”\(^3\) that produces a wide variety of statistical information.

**Computer Download and Analysis**

Pictures taken are downloaded to the Conservancy computers and appropriate analysis accomplished by a specially trained group of Citizen Scientists.

Analysis of the pictures is done by establishing a four level database.\(^3\) Using Windows Explorer with large icons and a preview pane, pictures are accurately categorized and then dragged and dropped into appropriate folders.

**Results and Implications**

The first year of this project has yielded interesting results. The presence in the study area of certain species, such as mountain lions, two kinds of skunks and grey foxes, have been clearly documented. Although seen before, results show badgers are more common and have a larger range than previously thought.

**References**


2. www.smallcats.org (This site contains downloadable copies of the DOS programs used in this process.)

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