Baseline data for a burned area in South Mountain Park in Phoenix, Arizona

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Introduction

There have been many fires in the South Mountain Park throughout its history. Unfortunately, there has been no known detailed documentation (baseline data) of the exact perimeter and area of these burns or of post-fire vegetation changes. This information can be invaluable for future researchers years, decades, and possibly even centuries from now for monitoring how the landscape changes over time in comparison to unburned areas, measuring individual species recovery rates, and making informed fire management and restoration decisions. We collected baseline data for the June 12, 2005 fire in South Mountain Park so that it is available for future researchers.

Resources Created

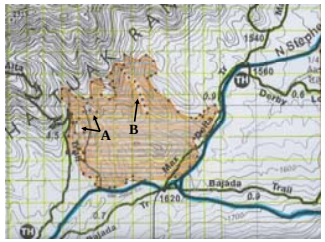
For authorized viewers:

- Coordinates, picture descriptions, and map will be housed at: http://caplter.asu.edu/home/projects/projsearch.jsp
- Pictures will be housed at: http://caplter.asu.edu/home/photos/photosearch.jsp

Coordinates, picture descriptions, pictures, and map will be publicly available on the Seinet website in the near future.

Photos currently available at: http://target.pg.photos.yahoo.com/ph/south_mtn_burn_2005/my_photos

Results



Map showing the perimeter of the burn, (A) patchy unburned areas, and (B) unburned wash

The information collected will be housed at ASU and also at South Mountain Park. This includes an Excel spreadsheet with picture numbers and associated coordinates, a map plotting the burn, patches, and points of interest created by ARCGIS software, and the entire collection of pictures. The pictures are also currently publicly available online.

Methods

The perimeters of patchy unburned areas like the one seen in this picture were also documented. This information could be valuble in the future in comparing burned to unburned areas as well as the potential of patches as seed bank refuges.

Pictures and coordinates were taken periodically along the perimeter of the burned area to attain photographic and geographic data from the burn.

Laura Fisher, Laura Dugan, and Bethany Lund collecting data at South Mountain Park

One of the patchy unburned areas up close.

Equipment

- Magellan Meridian Gold Handheld GPS to map the perimeter
- Fujifilm FinePix A340 digital camera

Burned *Cylindropuntia bigelovii*

A

Also documented were points of interest including several plants that were A) burned B) resprouting and C) post-fire new growth among other things. These pictures may aid in monitoring plant survival and regrowth post-fire and may contribute to creating good and efficient fire-management practices.

A burned *Larrea tridentata* resprouts after the monsoonal rains

B

The herbaceous *Argythamnia neomexicana* appears post-fire giving a glimpse of what the seed bank has stored.

C

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