

# Endangered Species Act 40<sup>th</sup> Anniversary Success Stories Paradine Plains Cactus



*Pediocactus paradinei* (Paradine plains cactus) is known to occur only on the eastern slopes of the Kaibab Plateau and portions of House Rock and Coyote valleys. The entire range of the cactus is about 90,000 acres with a majority of populations occurring on Forest Service lands and a few on Bureau of Land Management lands. The North Kaibab Ranger District has installed 19 permanent plots within the cacti's habitat. There are no verified occurrence of *P. paradinei* on the western side of the Kaibab Plateau.

Monitoring of *P. paradinei* populations has shown a decline in number of individuals, but with fluctuations between years. For example, from 2005 to 2007 number of individual cacti found increased but dropped in 2008 and from 2008 to 2010 numbers were increasing again but dropped in 2011.

*P. Paradinei* retracts into the soil to avoid environmental stressors. Surveys are conducted when the cacti are predicted to emerge from winter dormancy in late March through late May. Between late May and early July plants retract back into the soil during the driest conditions. Cacti will reemerge during the monsoons and remain above ground until November when they retract for the winter. This behavior makes it difficult to time surveys for maximum results.



Figure 1. *Pediocactus paradinei* with average width measure range, photo by Patrick Lair 2012



Figure 2 and Figure 3 *Pediocactus paradinei* (Paradine plains cactus) photo by Korin Miles 2009

Following the 2006 Warm Fire, which burned 18,700 acres of the *P. paradinei* conservation area, there has been efforts to relocate known locations of cacti.

Of the habitat burned, 20 out of 33 survey sites suffered high intensity fire and the other 13 surveys were low to moderate intensities. Seven (7) of the high intensity fire plots had *P. paradinei* located on them and 12 out of the remaining 13 had cacti on them.

Since the Conservation Assessment and Strategy was signed by the Forest Service, Bureau of Land Management, and Fish and Wildlife Service in 1998, the North Kaibab Ranger District on the Kaibab National Forest has been monitoring known locations of *P. paradinei* annually. The Assessment details conservation actions such as monitoring and mitigation measures which initially removed the cacti from the Endangered Species Act's candidate list. The Conservation Assessment is currently being updated.

Fig. 3



**Kaibab National Forest**  
North Kaibab Ranger District  
430 S. Main St.  
Fredonia, AZ 86022