

# ECOLOGICAL RESTORATION OF STUART BAT CAVE, KICKAPOO CAVERN STATE PARK, TEXAS

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## **Abstract**

Stuart Bat Cave, formerly known as Green Cave, is a well-known but poorly studied Mexican free-tailed bat cave in west Texas. Populations were estimated at up to ?? million. It was mined for guano until 1957 with a shaft dug into the back of the cave for easier guano extraction, but the change in airflow and microclimate caused almost total abandonment by the bats. Texas Parks and Wildlife purchased the ranch in 1986 to create Kickapoo Cavern State Park. The author coordinated volunteers from the Texas Speleological Association in capping the artificial entrance in December 2002, and began monitoring temperatures and humidity in the cave at that time. The situation was improving until Texas Parks and Wildlife decided to create a bat viewing area without consulting Bat Conservation International or even their own biologists on the design. The worst part was a handicapped-accessible sidewalk across the mouth of cave. Soon after construction was completed, consultation forced Texas Parks and Wildlife to agree that the platform in front of the cave had to be removed. Once again Texas Speleological Association volunteers mobilized, devoting 585 man-hours to breaking up and removing the thick reinforced concrete, and regrading and seeding the entrance slope. While still not perfect, the restored entrance is more bat-friendly and serves as a lesson on how not to create a watchable wildlife area. Populations seem to be rebuilding, but further observation is needed.

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