by Sarah E. Rinkevich and Keith Bashum



Rancher Warner Glenn photographed this jaguar near the New Mexico/ Arizona border, proving the presence of the species within its original range in the United States.

Photo © Warner Glenn

## Jaguar Conservation in the Borderlands

It may surprise many people that the jaguar (Panthera onca), the largest cat found in the Western Hemisphere, is native to the United States as well as Central and South America. It was believed to be extirpated from this country until 1996, when rancher Warner Glenn photographed an adult jaguar in the extreme southwestern part of New Mexico. After the sighting, local ranchers, other stakeholders, and state and federal resource managers formed an innovative group called the Jaguar Conservation Team. The team meets twice a year to discuss recent sightings, management issues, education, and jaguar research.

Studies of the current distribution of jaguars in the Mexican State of Sonora have identified three populations. The northernmost population is located approximately 135 miles (218 kilometers) south of the international border. Because these animals are capable of moving considerable distances, it is very likely that jaguars will continue to wander north into New Mexico and/or Arizona as long as the northern Sonora population remains viable. Livestock ranching is the main source of income in Sonora, and its ranching community has the perception that jaguars are the main cause of cattle mortality. At the same time, jaguars are considered a priority species for conservation by the Mexican government. Researchers are extremely interested in reducing jaguar mortalities while developing a strategy for sustainable ranching. Thus, an ecological study using the capture and radio-collaring of jaguars to monitor their movements and interactions with cattle has been initiated. This type of research should

provide crucial information for efforts to conserve jaguars and their habitats in the United States.

Jaguars occupy a diverse habitat ranging from tropical rain forests to arid deserts. Specifically, this feline inhabits brush, forested areas, jungles, swamps, and arid mountainous scrub. Its historical range extends from southwestern North American (Arizona, New Mexico, and Texas) through central Mexico to Central and South America, as far south as northern Argentina. The Jaguar Conservation Team is developing a document that identifies important habitat areas and characteristics within the U.S.

A more recent sighting confirmed that jaguars can still be found in the southwest. On January 25, 2002, the Fish and Wildlife Service was informed that another jaguar had been detected and photographed in southern Arizona approximately 5 miles (8 km) north of the U.S./Mexico border. Jack Childs, a lion tracker who holds a federal Endangered Species Permit for collecting

photographs and hair samples, said the picture was taken on December 9, 2001. When the story broke in the local newspapers, ranchers in southern Arizona expressed concern that the federal government would begin to restrict land use practices. Hearing of these concerns, the Jaguar Conservation Team formed an outreach subcommittee. The subcommittee conducted 10 outreach meetings in various communities throughout Arizona and New Mexico in November of 2002. Its aim was to locate landowners who might fear changes due to the presence of the jaguar, answer their questions, and solicit their advice and assistance in creating strategies for conserving the jaguar. The meetings featured a video presentation by Jack Childs, followed by a panel discussion among various members of the Jaguar Conservation Team and other stakeholders. Each meeting featured ample time for open discussions aimed at encouraging participation by local residents.

When the jaguar was originally listed as an endangered species, it was believed to be extirpated from the U.S. and therefore was not given protection in this country under the Endangered Species Act. A year after the 1996 sighting, the Service extended the endangered status to the jaguar throughout its range, including the American Southwest. Rangewide, the reasons for the decline of this species were deliberate persecution, excessive and illegal hunting, over-exploitation for the fur industry, and predator control programs. Further, timber and brush clearing have degraded and destroyed jaguar habitat. Continued clearing of habitat, destruction of riparian areas, and fragmentation or blocking of corridors could prevent jaguars from recolonizing previously inhabited areas. In Arizona, the jaguar's gradual decline was concurrent with predator control associated with the settlement of land and the development of cattle industry.

The Jaguar Conservation Team continues to meet twice a year, most recently in January 2003 in Wilcox, Arizona. The team was treated to a presentation by a local elementary class on their knowledge of jaguar biology and conservation efforts. These fourth graders had just finished a four-week module on the jaguar developed by the education subgroup of the Jaguar Conservation Team. The Service considers the Jaguar Conservation Team's emphasis on education activities to be extremely valuable to the conservation of this species in the American Southwest.

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Adult male jaquars weigh an average of 200 pounds, but they may exceed 300 pounds. Females weigh an average of 150 pounds. The name "jaguar" is derived from an American Indian word meaning "the killer that takes its prey in a single bound." Corel Corp. photo

