



Critical Habitat - An Ineffective Way to Protect the Jaguar

by David F. Briggs



In 2014 the U. S. Fish and Wildlife Service designated 764,000 acres of southeastern Arizona as jaguar critical habitat in order to placate overly litigious NGOs, who sued the federal agency. This action will have little or no impact on conservationists' efforts to preserve the jaguar as a species. Furthermore, its reallocation of limited resources could negatively affect more productive programs elsewhere.

The jaguar has inhabited the Americas since its larger ancestor, the Pleistocene North American Jaguar (*Panthera onca augusta*) crossed the Bering Land Bridge approximately 2.5 million to 1.8 million years ago (early Pleistocene). A formidable predator, the Pleistocene North American Jaguar was approximately the same size as a modern day African lion, weighing in at nearly 500 lbs. At the close of the last ice age (9,000 to 13,000 years ago), large prey species such as mammoth, mastodon, American horse, American camel, giant ground sloth and other large herbivores perished. Large carnivores like

the saber-tooth cat, American lion, dire wolf and Pleistocene North American Jaguar, which specialized in hunting these large prey species also became extinct. Their smaller more adaptable cousins, the mountain lion, gray wolf and smaller, modern day jaguar (*Panthera onca*) survived.

Some researchers have suggested this mass extinction of large mammals (aka - Megafauna) occurred because many of these species, not having evolved alongside of humans, were highly vulnerable to the introduction of a new predator and became extinct shortly after humans arrived in North America. Others have argued the mass extinction was well underway by the time humans arrived in North America. They have cited other factors such as climate change, environmental stresses, disease and competition as more likely causes for the extinction of the Megafauna. Based on this hypothesis, human activity only played a minor role, but may have hastened their demise.

Since the end of the last ice age, Native Americans hunted North America's largest feline, the jaguar for its spotted coat, significantly reducing its population throughout much of the continental United States and Mexico. By the time Europeans arrived in North America during the 16th century only remnant populations remained throughout much of the United States. A jaguar was reported sighted in North Carolina around 1710, while the last reported sighting of a jaguar east of the Mississippi River occurred in Louisiana in 1886. The last recorded occurrence of a female with cubs in the United States occurred in Arizona in 1910. No sightings of female jaguars have been made in the United States since 1963. Since that time only a handful of sightings of lone male jaguars have been reported in southern Arizona and New Mexico.

Farming, ranching, urbanization, logging, mining, road building, hunting and recreational activities have played a significant role in the loss of jaguar habitat. According to census figures the human population of Arizona was approximately 123,000 in 1900; today it is about 6.8 million. Although much of Arizona's population is concentrated in the metropolitan areas of Phoenix and Tucson, increased human activity in rural areas, including illegal smuggling and law enforcement activities along Arizona's southern border with Mexico, have contributed to the degradation of jaguar habitat over the last century.

Although jaguars have historically lived here for thousands of years, other than the occasional lone animal, viable populations of jaguar have not been present in Arizona for more than a century. With the unprecedented growth of Arizona's human population over the last century and impacts resulting from that growth, there has been a further deterioration of much of the remaining jaguar habitat, which is marginal at best. While lone males may be able to eke out a living here, females have avoided these areas due to insufficient resources to raise their young. With continued growth in Arizona and elsewhere throughout the southwestern United States, there is little that can be done to reverse the current trend. The historical range of the jaguar will continue to shrink.

Environmental groups' concerns for the occasional lone male jaguar, who may wander into the United States from Mexico are commendable. However, preservation of huge areas of marginal habitat at the northern extent of its historic range is a very inefficient way to preserve the species. The number of jaguars residing here is too small for the United States to be an effective participant in regional conservation efforts to protect these magnificent cats. The money and other resources being spent

here would be more productively invested in efforts to preserve viable populations of jaguar that occur in Mexico and Central and South America.

Disclaimer: David F. Briggs is a resident of Pima County and a retired geologist, who has intermittently worked on the Rosemont project between 2006 and 2014. The opinions expressed here are those of the author and do not necessarily reflect those of Rosemont Copper.

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