

# **Survey of Rancher Opinions about Wildlife and Jaguar Habitat Management: Preliminary Results**

## **Introduction**

In the Fall of 2014, the University of Arizona surveyed the ranching community in southern Arizona and southwestern New Mexico to:

- Understand what management practices ranchers in the region are implementing to improve range conditions and wildlife habitat;
- Learn ranchers' opinions and concerns about jaguar Critical Habitat designation by the US Fish and Wildlife Service; and
- Provide information and learn about ranchers' opinions towards different approaches to providing economic incentives for conservation

The survey was distributed to 271 ranches in the region using a list constructed from county property records, US Forest Service and Bureau of Land Management grazing lease holders, and University of Arizona Cooperative Extension contacts. A total of 112 responses were received for a response rate of 41%. All responses were anonymous.

Most (64%) of respondents are over 60 years old, have been running their operation for more than 20 years, and are from multi-generational ranching families. The size of operation is well distributed: 26% of respondents have 100 or fewer head of livestock and 22% have greater than 500 head of livestock. Nearly all respondents earn at least some income from sources other than ranching. Overall, the respondents are representative of the ranching community as a whole.

## **Current Management**

Respondents are engaged in a wide variety of management practices. The most common management practices used are:

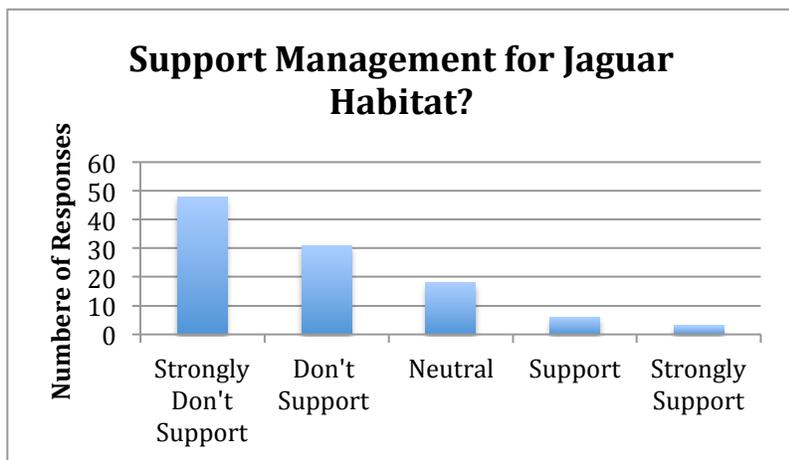
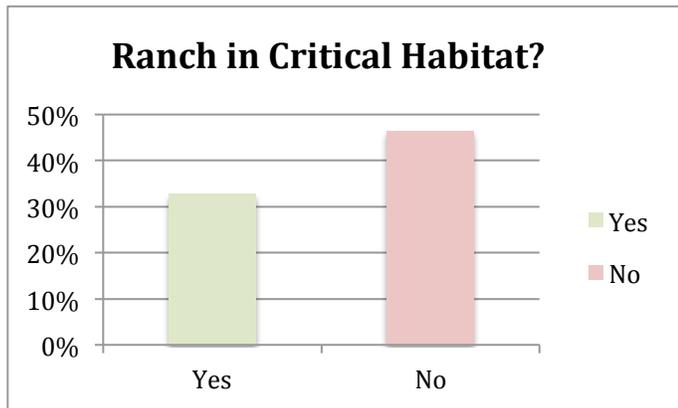
- Grazing Management Plans (85%) and Drought Management Plans (57%)
- Rotational grazing (86%)
- Stock ponds/tanks (82%)
- Range monitoring (80%)

The least commonly implemented management practices are stream fencing (8%) and prescribed fire (14%). A majority of respondents reports implementing management practices specifically for the benefit of wildlife, regardless of whether or not the management practices increase the profitability of their operation (67%).

## **Impacts of Jaguar Critical Habitat Designation**

The survey included a series of questions about jaguar habitat in general and the impacts of the designation of Critical Habitat for jaguars. Critical Habitat is an area formally designated by the US Fish and Wildlife Service as essential to the conservation of an

endangered species. About half of the respondents (46%) said that their ranches are located within the boundaries of designated Critical Habitat, while 33% said that their ranches are outside of the habitat area (and 21% of respondents are unsure if they are inside or outside of the Critical Habitat boundary). Despite the formal designation of Critical Habitat by the US Fish and Wildlife Service, a strong majority of ranchers do not think there is jaguar habitat in Arizona and New Mexico (85%). This opinion is consistent with the position taken by the US Fish and Wildlife Service during the legal proceedings that ultimately resulted in court rulings forcing the designation of Critical Habitat areas in Arizona and New Mexico. In a reflection of their opinions about Critical Habitat, most ranchers also do not support management of public and private lands for jaguars. Comments in response to the survey question indicate this management is not supported largely because ranchers do not think there is habitat in the region.



A primary goal of the survey was to learn how ranchers expect the recent designation of Critical Habitat for jaguars in southern Arizona and New Mexico to impact their operations. The survey found that ranchers are most concerned about the impacts Critical Habitat designation will have on government involvement in their operations, livestock

degradation, the ability to sell or lease their land, and renewal of their grazing permits.

### Jaguar and Lion Depredation

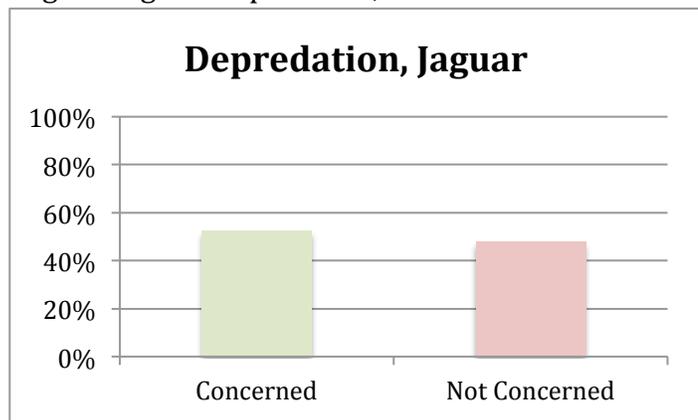
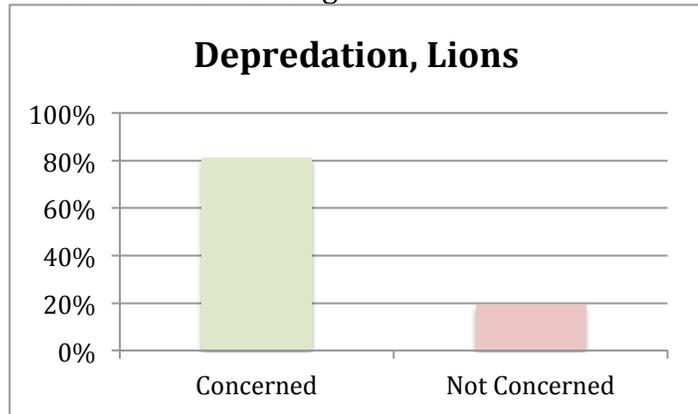
The survey also asked a series of questions about the current impact of mountain lions and jaguars related to livestock depredation and about the expected impacts resulting from the designation of Critical Habitat for jaguars. Overall, ranchers are more concerned about livestock depredation by mountain lions than by jaguars. This is likely a reflection of the fact that many ranchers deal regularly with depredation from mountain lions, while depredation by jaguars is extremely rare. The most common management practice used to combat livestock depredation is lion hunting. There is concern that Critical Habitat designation may result in an increase in livestock depredation. Comments in response to

survey questions indicate that many ranchers are concerned that the Critical Habitat designation could result in restrictions on mountain lion hunting.

### Conservation Incentives

The survey also provided some background information on economic incentives for the implementation conservation practices on ranches and asked ranchers to react to a series of generic program models. The survey asked ranchers about four different programs models:

- *cost-share programs*, which pay a portion of the cost of implementing management practices;
- *management incentives*, programs similar to cost-share programs, but that pay the full cost of implementing management practices to the participating rancher;
- *conservation contracts with annual payments*, a multi-year contract that provides per-acre annual payment to implement a management plan to benefit wildlife; and
- *credit markets*, an approach that enables ranchers to develop a marketable commodity by implementing certain types of measurable conservation activities.



Of the four models offered, cost-share and management incentives programs are the most popular with respondents. While more respondents are interested in cost-share programs than management incentives when asked to react to each program separately, when all four program types are ranked together, management incentives receive more first- and second-choice votes than do cost-share programs. Conservation contracts are somewhat less popular, while there is little interest in credit markets.

Endangered species issues and the potential for government involvement in program administration affect interest in conservation incentives. When implementation of management practices increases the chances of an endangered species living on a ranch, interest in incentives programs decreases. Similarly, if the Federal government is involved in funding or administering a program, interest declines. These concerns are grounded in concern over increased government control and intervention into respondents' operations. Using only private funds to implement a conservation incentives program would increase the interest of some respondents (36%).