

## **Workshop Report**

**University of Arizona**

**IAA: 4500052885**

### **Sustaining Ranching, Supporting Conservation: An Interactive Workshop for Ranchers and Landowners in Southern Arizona**

*Funded by the U.S. Fish and Wildlife Service*

#### **Executive Summary**

This report summarizes a series of workshops called “Sustaining Ranching, Supporting Conservation: An Interactive Workshop for Ranchers and Landowners in Southern Arizona,” held on three separate dates: February 3, February 10, and March 12, 2015 in three different locations in southern Arizona. The format and content of each workshop was structured identically. The locations were spread throughout the jaguar’s critical habitat region. The workshops were conducted as part of a larger project funded by the U.S. Fish and Wildlife Service (USFWS) to develop, test, and assess the effectiveness of selected capacity building for ranch owners and managers on jaguar habitat management/jaguar-friendly cattle ranching, including methods to reduce depredation.

A separate workshop was held on April 28, 2015 in Willcox, AZ to address predation reduction strategies. This meeting was developed in cooperation with Panthera, an organization devoted to preserving big cats and their ecosystems around the world.

#### **Introduction**

This report describes a series of identical workshops called “Sustaining Ranching, Supporting Conservation: An Interactive Workshop for Ranchers and Landowners in Southern Arizona,” held on February 3, February 10, and March 12 in three different locations in southern Arizona, including Patagonia, Douglas and Altar Valley, respectively. In total, there were 43 workshop participants, including ranchers from Pima, Cochise, Santa Cruz, and Hidalgo, NM counties, representatives from USFWS, and Pima County Natural Resources, Parks and Recreation. The workshop was organized by Laura Lopez-Hoffman, University of Arizona Assistant Professor at the School of Natural Resources, and an Assistant Research Professor at the Udall Center for Public Policy Studies at the University of Arizona; George Ruyle, University of Arizona Range Management Extension Specialist; Scott Bonar, UA Associate Professor and Unit Leader of the USGS Arizona Cooperative Fish and Wildlife Research Unit; Aaron Lien, University of Arizona Senior Researcher at the Udall Center for Studies in Public Policy; Colleen Svancara, University of Arizona Graduate Research Assistant at the School of Natural Resources; Wendy Vanasco, a University of Arizona Research Technician at the School of Natural Resources; and Gary Forbes, Facilitator, University of Arizona. Presentations on the Endangered Species Act and Jaguar Critical Habitat Designation were given by Marit Alanen, Fish and Wildlife Biologist, USFWS and Scott Richardson, Supervisory Fish and Wildlife Biologist, USFWS. The purpose of these workshops was to enhance rancher knowledge of jaguar conservation, jaguar friendly ranch

management practices and conservation incentive programs and to obtain additional feedback from the ranching community about the challenges and opportunities for maintaining ranching in Southern Arizona and Southwestern New Mexico.

## **Purpose**

Sustainable ranching is the cornerstone in the foundation of large-landscape conservation in the Southwest. The work ranchers are doing now with managed grazing systems, water improvements across the landscape, and grassland restoration and erosion management practices plays a vital role in maintaining healthy habitat for wildlife. Ranching also provides large blocks of open, relatively undisturbed land, which is essential for many species in the Southwest. Ranchers provide these benefits for the most part without compensation.

As part of a research study funded by the U.S. Fish and Wildlife Service, the College of Agriculture and Life Sciences at the University of Arizona sent a survey to 271 ranches across southern Arizona and southwestern New Mexico. This survey asked about wildlife management on ranches, the presence of mountain lions and jaguars in the region, and about proposals—including critical habitat designation and financial incentive programs—to manage habitat for jaguars. As part of this research study, we conducted a series of workshops to seek additional feedback from the ranching community. These meetings were designed to present an opportunity for ranchers to provide us with additional comments and to learn more about conservation incentive programs and the impacts of critical habitat designation for jaguar on ranching in the region.

The concept of conservation incentives, or “payments for ecosystem services,” is developing as a way to pay ranchers for the ecological benefits of their existing or new land management practices. The aim of conservation incentive programs is to provide a voluntary, non-regulatory approach to encourage economically and ecologically sustainable land management. Incentive programs may help ranchers diversify their sources of income, making operations more robust to market fluctuations and weather conditions such as drought. They also provide new sources of capital to implement conservation practices, such as water developments or erosion control structures. Finally, incentives may increase public recognition of the value and ecosystem benefits provided by sustainable range management (including increased rangeland resiliency; maintenance of large, connected landscapes and open space that support wildlife and public enjoyment; and increased certainty that rangelands are sustainably managed).

These workshops also served as an instrument to provide to USFWS and other government agencies a more detailed and richer understanding of how ranchers comprehend, think about, and prioritize wildlife habitat management and existing conservation incentives programs. At the workshops, we investigated rancher preferences for the design of payment for ecosystem services programs and sought feedback on the kinds of information most important to include when communicating with these landowners regarding endangered species.

## Workshop Process

We conducted three identical landowner workshops in different locations throughout the jaguar's critical habitat region. Each workshop consisted of three segments 1) An overview of the initial results of the *Survey of Rancher Opinions about Wildlife and Jaguar Habitat Management* and a presentation with information on the Endangered Species Act and critical habitat designation; 2) a group work session that used Q methodology to develop a statistically compelling understanding of the range of views held by the ranching community; and 3) an educational presentation and interactive discussion about conservation incentives programs to give ranchers the opportunity to talk about their ranching conservation goals in relation to payment for ecosystem services programs.

### *Results of the Rancher Survey*

Next, workshop participants heard a presentation from Aaron Lien about the initial results of the *Survey of Rancher Opinions about Wildlife and Jaguar Habitat Management*. He explained that the goals of the survey were to understand ranchers' opinions - not just about jaguar issues, but what they are doing for wildlife management in general- and to learn how ranchers expect the recent designation of critical habitat for jaguars in southern Arizona and New Mexico to impact their operations. In addition, the survey was used to introduce basic concepts of conservation incentives and get feedback on ranchers' knowledge and their opinions about them. We sought to answer questions about 1) what types of conservation programs ranchers are already using?; 2) are there other approaches to incentives that are more or less attractive?; and 3) how do incentives impact ranch management?

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.

The survey included a series of questions about jaguar habitat in general and the impacts of the designation of critical habitat for jaguars. 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.

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.

After the presentation of results, the session continued with a question and answer period. A few participants questioned why we were focusing on jaguar conservation. Since there have only been sightings of a few transient males over the past several years, there was concern over why critical habitat was deemed necessary at all, fueling concern for possible reintroduction of the species. We expressed to our participants that this project was funded by USFWS to study the jaguar and critical habitat issues, however we are also interested in the larger question about wildlife habitat. We know ranchers are doing a lot, but also want to understand how conservation fits into the priorities of ranch management. The jaguar was the impetus for this larger research project.

Other questions and comments revealed that ranchers are most concerned about the impacts critical habitat designation will have on government involvement in their operations, livestock depredation, the ability to sell or lease their land, and renewal of their grazing permits. With regard to livestock depredation, most ranchers are concerned with predation from mountain lions, and the most common management practice used to combat livestock depredation is lion hunting. There is concern that the critical habitat designation may result in an increase in livestock depredation, stemming predominantly from the fear that the critical habitat designation could result in restrictions on mountain lion hunting.

Ranchers also expressed frustration that the final maps of designated jaguar critical habitat were not more refined. Many workshop participants could not determine if their land fell within the critical habitat boundaries.

#### *The Endangered Species Act and Jaguar Critical Habitat Designation*

After the discussion about the survey results, a presentation was given by a representative from the U.S. Fish and Wildlife Service about the Endangered Species Act. This presentation included the process of listing a species and designating critical habitat, illustrated by the case of the jaguar. It was explained that critical habitat designations protect a geographic area that

contains attributes “essential” to the conservation of a threatened or endangered species. Those attributes include sources of food and water, breeding habitat, travel corridors, or other resources. For jaguars, these essential attributes include populations of prey animals, water sources, connectivity corridors in the mountain ranges, and low human influence. Federal agencies must consult with USFWS before undertaking any projects that might adversely affect or destroy critical habitat.

At the conclusion of the presentation, another question and answer session was held. As in the previous question and answer session, ranchers expressed concerns that the final maps of designated jaguar critical habitat were not more detailed, claiming that they could not determine if their land fell within the boundary. Many expressed frustration with the lack of communication with USFWS in informing the ranchers that were within, or near the boundary.

Ranchers expressed concern that there was a lack of reliable science cited in the critical habitat proposal to support the designation, noting that there have been no reliable reports of female jaguars with cubs in Arizona or New Mexico, and that the sightings of jaguars have been only of a few transient males. Ranchers also emphasized the research of Alan Rabinowitz, one of the world experts on jaguars, and his evaluation of the habitat in southern Arizona and southwestern New Mexico for jaguars. His thoughts were that the environment is too dry, and prey abundance too low, to support a jaguar population.

There were several other concerns that the designation of critical habitat may adversely impact border security by limiting law enforcement activities or limiting existing or planned border security infrastructure, such as roads, lighting, and fencing.

Ranchers also have fears that the critical habitat designation would limit their rights on privately owned land. Critical habitat designation does not impose restrictions on private lands unless federal funds, permits, or activities are involved. However there is concern that the existence of a federal nexus could trigger the need for federal approval under the Endangered Species Act and potentially impose limitations on things like water infrastructure maintenance, prescribed fires, vegetation management, among others.

#### *Work Session: Ranchers' View, Ideas, and Goals*

After a short break, the workshop resumed with participants taking part in an interactive activity called a Q sort. Q Methodology is a research method used to study subjectivity. The way a Q study is carried out and the types of analysis used to evaluate the results allow researchers to determine the number of different social perspectives held by a community, what those perspectives are, and how they relate to one another. In the case of this project, we were seeking to broaden our understanding of the range of views held in the ranching community about jaguar and wildlife conservation issues.

Q studies are carried out by having participants rank a sample of statements. For our study, we chose 40 statements drawn from our initial rancher interviews, comments submitted in writing or



- 11. "I manage for wildlife regardless of government policy"
- 21. "There is too much management for wildlife"
- 31. "I don't think it is necessary to conserve habitat – wildlife go where they please."

a2. Grasslands/Erosion

- 2. "I use a planned grazing system to improve grasslands."
- 12. "Science demonstrates that it is better for the environment and grasses to have grazing."
- 22. "I do conservation practices that do not require too much change to my current management."
- 32. "I recognize that ranching has some impacts, but most of the time they are relatively benign."

a3. Landscapes

- 3. "I work to make a healthy, functioning landscape."
- 13. "As long as ranching remains viable, I can maintain the open space on our private lands to prevent fragmentation of the landscape."
- 23. "Large landscape projects take too much work."
- 33. "At a large landscape level, decisions are made elsewhere so that I can't really have an impact."

a4. Water

- 4. "Ranching provides water and other natural things that would normally be there."
- 14. "I take care of the land and provide water."
- 24. "I pay attention to water because water is what makes me profitable"
- 34. "The water I put on the land just brings predators closer to my livestock."

b. Economic

b1. Profitability

- 5. "The benefit of restoration projects must offset the cost."
- 15. "Ranching is a creator of wealth."
- 25. "My overarching goal is to maintain a functional watershed and profitability follows."
- 35. "I need to protect my resources for the cattle to get maximum dollars for cattle."

b2. Future generations

- 6. "I view myself as a temporary steward to improve the land for the next generation."
- 16. "I am a steward of the land"
- 26. "The successional thing is a big issue. It's hard to find young people who want to do this kind of work."
- 36. "It's becoming harder to make a profit in ranching."

b3. Innovation

- 7. "It's hard to make a living ranching; diversifying my operation helps."
- 17. "I need more ways to make money on the ranch."

- 27. "I don't need more ways to make money – I'm fine on my own."
- 37. "I'm not so much interested in diversifying my income, as getting the physical help and labor to implement conservation methods."

c. Cultural

c1. Way of life

- 8. "Ranching is part of my family legacy"
- 18. "Ranching is all I've ever wanted to do"
- 28. "I just like being outside and ranching is a job that lets me do that"
- 38. "Ranching is a dying way of life"

d. Government's role

d1. Government regulations/Involvement

- 9. "There is definitely a role for government."
- 19. "Government intervention in land management is necessary."
- 29. "Because of endangered species, I can't operate my ranch without the Feds looking over my shoulder."
- 39. "Government programs right now are punitive to stewards"

d2. Incentives

- 10. "I think if the government works more with stewards, it can reach bigger goals with greater cost savings"
- 20. "Government is a good partner for private business when it mobilizes resources to be helpful."
- 30. "There is no one size fits all policy for different ranches"
- 40. "I'm not interested in government incentives because it gives them power to limit my activities"

Many participants found the sorting process difficult as they had strong feelings about many of the statements presented. After the exercise was completed, we also asked each participant to fill out a feedback form describing how the two statements sorted below the "+4" are most like how they think and describing how the two statements sorted below the "-4" are least like how they think. These comments will be helpful as we complete a detailed factor analysis of the results.

Our preliminary findings show that our participants generally fall into one of two groups defined by trust of the federal government. One group generally thinks that the federal government can be a good partner in conservation and range management. The other group is not interested in working with the government and thinks the government is a negative force on the landscape. However, both of these groups generally agree that ranchers have a commitment and responsibility to manage for healthy rangelands and wildlife habitat. This area of agreement broadly aligns with the principles of the land ethic. This is an important finding – regardless of attitudes toward government, ranchers have positive views about conservation. Future efforts to design new conservation programs targeting ranchers should keep this dynamic in mind. Programs that seek broad-based participation may want to avoid direct involvement of federal agencies.

For further detailed analysis we are using a software package designed specifically for Q Methodology, PQMethod, to conduct statistical factor analysis. The goal of the factor analysis is to see which Q statements are most related and least related to different groupings of people. Each factor is associated with a different set of opinions, both positive and negative, about the issues in the sort. Participants will cluster around different factors. The analyses of these results will complement the survey findings and help to improve public and government understanding of ranchers' goals and opinions.

### *Conservation Incentives and Income Diversification*

After another short break, the workshop resumed with participants taking part in an interactive presentation and discussion on different types of conservation incentive and income diversification programs. A presentation introduced and described the concept of conservation incentives - and how these programs can be developed as a way to pay ranchers for the ecological benefits of their existing or new land management practices. During the discussion, participants were presented with five questions to give us a better understanding of what elements might make a program most attractive. If participants didn't feel comfortable with asking a question or making a comment during the discussion, colored index cards were provided so that their questions and concerns could also be recorded. The questions we presented and a sampling of the responses are listed below.

Question 1: Based on what you've heard, what would be the key elements to create a conservation incentives program for ranchers in the Southwest?

- Sustainable ranching is critical.
- Concerned about the profitability of ranching.
- EQIP? Look what's out there. Is it working for you? Why does the amount change? Farm Bill issues. Too many variables in the factors of the Farm Bill. Look what we've already had. Did it work? Need to look at the past and see what works going forward based on the past.
- Need to know what works if it's already here.
- Not fast enough.
- Federal funding should not be tied to any Federal nexus. Absolute no for ranchers.
- Privately funded programs would be key elements.
- Payments need to come faster.
- Need land guaranteed for agriculture – land gets guaranteed as farming land or ranching land. Limit subdivision of land.
- Need to think about the future generations. Important to guarantee that will remain.
- Conservation easements – and give away your development rights. Need to think about the future if the land can't be sold in the future.
- To protect the original use of the land the most ecological useful part of the land can be saved through easements.
- Need alternative to easements. More like agree to 10 years and get some incentive payments during that time.

Question 2: Are you comfortable with the idea of making conservation part of your business model?

- NRCS has a conservation reserve program...usually 5 years. Problem is that they are designed more for agricultural entities in the midwest. Not designed for southwest. Difficult to continue for this area. Need different criteria for ranchers in the southwest. Have to start off with something new each 5 years.
- NRCS first time rancher program doesn't have a clue. Older ranchers can't get money and have more experience. Wrong audience. Why so specific if they need to help people in the business trying to survive? Need help with the changing economy.
- Private monitoring might be more anti-livestock.
- Most trusted are cooperative extensions.
- Conservation incentives are there to get cows off the landscape by wildlife groups. Interests in using grazing in conservation practices.
- Arizona Land and Water Trust is a trusted model.
- Don't want to run business model based on incentives programs.
- I don't think you will convince any rancher to do anything they don't want to do by throwing money at them. Reinforcing something that that person isn't willing to do. Not going to make me want to have wolves on my property with incentives.

Question 3: What types of payments are you most comfortable with?

- Grass banking in southern AZ.
- Tax free.
- On-going payments better than lump sum.
- Cost share - if you don't put some of your own money into don't care as much.
- Believer in legal contracts. Beginning and end. Quantifiable.

Question 4: What types of regulatory assurances would you need to participate in a conservation incentives program?

- Safe harbor agreements – don't protect neighbor.
- Worried about other potential endangered species. Need to be inclusive of a lot of species and not just focused on one.
- Who will do the NEPA process, who has access to info, and when do they get access?
- Anyone can do except USFWS. Driven by litigation. Question of funding – where does funding come from? Makes a big difference.

Question 5: If a conservation incentives program were to proceed, what would be the necessary elements for it to work for you?

- CRP program – good program should be adapted to the southwest.
- Incentive has to be large enough to make it worthwhile.
- Less strings attached.
- Tax implications have to be known upfront.
- Need to be protected from fire – prescribed burn – programs don't want the liability.

- Large landscape projects hard to implement – lack of control over environment.
- Any way the program can work with person best to evaluate a property. Need more individualized assessments of the land.
- Need targeted technical assistance. Better way to implement NRCS program and more funding needed.
- Need to have partnerships with ranchers.

### *Workshop Conclusion*

The workshop concluded with a few brief closing remarks, thanking participants for their time and providing informative questions and comments. An exit survey was handed out to all participants along with a boxed lunch. A large majority of those who filled out the evaluations enjoyed the workshop and felt that the information presented was very helpful and informative. Most were very appreciative for the opportunity to voice their comments and concerns over these important conservation and incentives issues, and hope to continue to be a part of the conversation going forward.

### **Summary**

One of the key outcomes from these workshops is to note that most ranchers don't have a problem with the jaguar being around. Their concerns center around their apprehensions about the way the critical habitat designation affects their land management practices. They are also frustrated with the way USFWS has provided information about the critical habitat designation and would like better avenues to communicate and work with agencies regarding endangered species conservation.

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.