PERCEPTIONS TOWARDS JAGUAR (*Panthera Onca*) CONSERVATION IN THREE COMMUNITIES OF THE ABRA-TANCHIPA BIOSPHERE RESERVE

ALEJANDRA OLIVERA MÉNDEZ
E. RUBÍ GONZÁLEZ SIERRA
OCTAVIO C. ROSAS ROSAS
J. FELIPE NÚÑEZ ESPINOZA
OSCAR L. FIGUEROA RODRÍGUEZ
Background

• The state of San Luis Potosí has great diversity of wildlife

Within the Huasteca Potosina region, we can find jaguars (*Panthera onca*)

  – Enlisted in the NOM-059-SEMARNAT-2001 as endangered
  – Its ecological function is to help maintain balance in the ecosystem by preying on old or sick animals
  – Priority species for conservation
Jaguar Conservation in the Huasteca Potosina region

Since 2006: scientific research to study the conservation status and distribution in San Luis Potosí

Villordo Galván et al., 2010
Objective

To analyze the perceptions towards jaguars and their conservation by members of three communities in the surrounding areas of the “Reserva de la Biósfera Sierra del Abra-Tanchipa” in the state of San Luis Potosí, Mexico.
BIOSPHERE RESERVE “SIERRA DEL ABRA TANCHIPA” (RBSAT)

Methodology

<table>
<thead>
<tr>
<th>COMMUNITY</th>
<th>No. RESPONDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laguna del Mante</td>
<td>81</td>
</tr>
<tr>
<td>Los Sabinos Dos</td>
<td>57</td>
</tr>
<tr>
<td>López Mateos</td>
<td>22</td>
</tr>
</tbody>
</table>

160 survey respondents in total:
- 97 women
- 63 men
Characteristics of communities

Age average = 48 years old
(10 year difference between men & women)

Men = agriculture
Women = house wives

López Mateos = predominantly indigenous
Laguna del Mante & Los Sabinos 2 = predominantly mestizos

In López Mateos there was absolutely no access to running water or butane gas

Almost 40% didn’t have any studies or elementary school completed

López Mateos = community with the lowest education level
Livelihoods

Respondents depended almost exclusively on subsistence agriculture and the rearing of livestock.

Main crops = maize & beans
A bit more than 20% cultivate sugar cane for selling purposes.

Main livestock = poultry
Nearly 20% = bovine & ovine cattle (more in Los Sabinos 2)
Main causes of livestock losses

<table>
<thead>
<tr>
<th>Cause</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diseases</td>
<td>41.9% (26)</td>
</tr>
<tr>
<td>Drought</td>
<td>17.7% (11)</td>
</tr>
<tr>
<td>Accidents</td>
<td>14.5% (9)</td>
</tr>
<tr>
<td>Predation</td>
<td>12.9% (8)</td>
</tr>
<tr>
<td>Poisoning</td>
<td>3.3% (2)</td>
</tr>
<tr>
<td>Theft</td>
<td>1.6% (1)</td>
</tr>
<tr>
<td>Missing</td>
<td>1.6% (1)</td>
</tr>
<tr>
<td>Died giving birth</td>
<td>1.6% (1)</td>
</tr>
<tr>
<td>Don’t know</td>
<td>4.9% (3)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100% (62)</strong></td>
</tr>
</tbody>
</table>

- Grey fox, 28.6
- Jaguar, 19
- Jaguarundi, 23.8
- Opposum, 4.8
- Coyote, 14.3
- Sparrow hawk, 4.8
- Crested caracara, 4.8

2 respondents
4 domestic animals
Jaguar presence in the surroundings

130 respondents (81.3%) declared there are jaguars near their community

38.5% said there are more than before

- Direct sightings: 27%
- Tracks & signs: 15%
- Somebody else has seen it: 1%
- Auditory: 3%
- Preyed animals: 1%
- None: 53%

35 have seen one
Why do you think jaguars exist?

- Part of nature
- It's their habitat
- Some function or benefit
- Protect the forest
- Detrimental / predation
- They escaped (circus)
- For nothing
- Because we don't kill them
- Don't know

Percentage:
- 30
- 25
- 20
- 15
- 10
- 5
- 0

Graph showing the percentage of responses for each reason jaguars exist.
Associations with the word “jaguar”

- Negative (44.4%)
- Positive (28.8%)
- Neutral (11.9%)
- D.K. / D.R. (15%)

Men = 39.7% positive
Women = 55.7% negative

Los Sabinos 2 = 40.4% positive

85.7% women in López Mateos = negative
Conflicts with jaguars

Have you had problems due to jaguars in your surroundings?

- Yes: 5%
- Others, not me: 49%
- Didn't answer: 18%
- Don't know: 5%
- No: 23%

8 respondents

87.25% have their lands less than 3 km. of the reserve

LIVESTOCK PREDATION

Why do they prey?

72.15% there are no wild preys and they are hungry
Do you believe jaguars are a threat to humans?

- 40% As long as it's not bothered
- 12% As long as it has food
- 32% Didn't answer

- 36% Yes
- 42% No
- 11% Depends
- 11% D.A.

- 62.07% It can attack us
- 13.79% If it's fierce
- 8.62% If it's hungry

- 38.24% Doesn't attack humans
- 23.53% They flee from humans
- 19.12% As long as it's not bothered

50% López Mateos = yes

Men = 55.6% no
Women = 45.4% yes

No clear tendency
Do you consider important jaguars exist in the forest?

- Yes: 67%
- No: 9%
- Depends: 3%
- Don't know: 15%
- D.A.: 6%

Lesser importance:
- Los Sabinos 2 (54.4%)
- Women (10% lower)

42.85% They prey on livestock
42.85% They’re dangerous

Part of nature
Ecosystem balance
They’re beautiful (adornment)
It’s their habitat (as long as they...)
They have a right to live
The government requests it &...
Tourism (people come to watch it)
Land value increases
They don’t do anything to us
Don’t know
Didn’t answer
Do you consider important to conserve jaguars?

- Yes: 62%
- Depends: 1%
- No: 15%
- Indifferent: 5%
- Don't know: 1%
- Didn't answer: 16%

Men = 69.8%

Women = 57.6%
Would you agree jaguars should continue to be in the area?

- Didn’t answer: 44%
- Totally disagree: 6%
- Disagree: 5%
- Indifferent: 6%
- Agree: 8%
- Totally agree: 31%

López Mateos: 72.7%

Men = 38.1%
Women = 26.8%

24% They’re beautiful
18% They’re harmless
16% To prevent their extinction

38.46% As long as they don’t do harm
30.77% They fulfil a function (prey population control)

44.45% As long as they don’t do harm

37.5% Predation
25% Fear
25% Danger

40% Fear
30% Predation

More than 40% didn’t answer
Comparison between existence, conservation & continuous presence

- Important they exist
- Important to conserve them
- Continuous presence in the surroundings

Percentage
How could we have a peaceful coexistence between jaguars and people?

![Bar chart showing percentage responses to different strategies for coexistence.]

- Livestock management: 24.69%
- Don’t kill/increase wild prey: 14.81%
- Confine them/take them away: 11.11%
- Reserve/fencing: 9.88%
- Prevent poaching: 7.41%
- No tying up dogs: 7.41%
- Killing them: 4.94%
- Drinking troughs in the reserve: 4.94%
- If jaguars or humans weren’t there: 2.47%
- Study the animal’s mind: 2.47%
- Didn’t answer: 1.23%
- Did they answer: 1.23%
Conclusions

- Although many people have had some contact with the species, reported conflicts due to jaguar predation on livestock were few. The main domestic animals preyed upon were calves and dogs.

- People are aware that these conflicts were because there aren’t wild preys and jaguars are hungry.
Conclusions

• There were more negative associations towards the word “jaguar”. However, people understand their right to live
• More women consider them a threat for fear of being attacked

• There is a need for environmental education and awareness, specifically in regards to jaguars, and community actions that promote both development and conservation by preventing conflicts, especially in the case of livestock predation
Conclusions

• Attitudes towards jaguars’ presence and their conservation were mostly positive, which in the long term and with more research, could allow conservation projects to success.

• People consider it is important to conserve jaguars as long as they aren’t affected by their presence.
Conclusions

Jaguar conservation strategies in these communities should be preventive, focusing on **livestock management** and **environmental awareness**.
THANK YOU!

Questions?