

Cattle ranchers' attitudes to conflicts with jaguars in the Pantanal of Brazil

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Appendix

Survey of jaguar depredation problems and conservation issues in the Pantanal of Mato Grosso (English translation of Portuguese original).

Background

On this ranch you are owner manager employee – what is your job? _____
Your age ≤30 31–40 41–50 51–60 61–70 71 +
How long have you lived/worked at this ranch? _____ years
What is the size of this ranch? _____ ha
How many people are employed on this ranch? _____
Approximately how many people are directly dependent for their livelihood on this ranch? _____

Cattle

How many cattle are there on this ranch? _____
Do you now have more or fewer cattle than 5 years ago?
 many more more same fewer many fewer
Are the cattle guarded in any way? yes no
If yes, a) How? fencing dogs people/workers other, please describe: _____
b) When are they guarded? always daytime only night-time only other pattern _____

Jaguars

Are there jaguars within the boundaries of the ranch? yes no don't know
Have you seen any jaguars this year?
 no yes, saw jaguar yes, saw signs of jaguar
Do you see more of fewer jaguars (or signs of jaguars) now than 5 years ago?
 more now less now about the same don't know
Have there been any losses of cattle caused by a jaguar on this ranch? yes no
If no please go to question 20. If yes please continue.
Approximately how many heads of cattle have you lost to jaguars
a) this year (since 1 Jan 2000)? _____ b) last year (1999)? _____

Do the number of jaguar attacks appear to be more or less than 5 years ago?

more less same don't know

Do any other predators ever attack the cattle?

puma	<input type="checkbox"/> sure	<input type="checkbox"/> suspected	<input type="checkbox"/> possible	<input type="checkbox"/> unlikely	<input type="checkbox"/> not possible
maned wolf	<input type="checkbox"/> sure	<input type="checkbox"/> suspected	<input type="checkbox"/> possible	<input type="checkbox"/> unlikely	<input type="checkbox"/> not possible
caiman	<input type="checkbox"/> sure	<input type="checkbox"/> suspected	<input type="checkbox"/> possible	<input type="checkbox"/> unlikely	<input type="checkbox"/> not possible
anaconda	<input type="checkbox"/> sure	<input type="checkbox"/> suspected	<input type="checkbox"/> possible	<input type="checkbox"/> unlikely	<input type="checkbox"/> not possible
other _____	<input type="checkbox"/> sure	<input type="checkbox"/> suspected	<input type="checkbox"/> possible	<input type="checkbox"/> unlikely	<input type="checkbox"/> not possible

Which animals are taken by jaguars?

strong/healthy animal	<input type="checkbox"/> often	<input type="checkbox"/> sometimes	<input type="checkbox"/> rarely	<input type="checkbox"/> never
old or weakened animal	<input type="checkbox"/> often	<input type="checkbox"/> sometimes	<input type="checkbox"/> rarely	<input type="checkbox"/> never
pregnant animal	<input type="checkbox"/> often	<input type="checkbox"/> sometimes	<input type="checkbox"/> rarely	<input type="checkbox"/> never
young animal	<input type="checkbox"/> often	<input type="checkbox"/> sometimes	<input type="checkbox"/> rarely	<input type="checkbox"/> never

Have you noticed any patterns in these attacks in terms of time and season? Attacks happen

a) Time always at night always during the day mostly at night mostly during the day no pattern other pattern _____

b) Season mostly during the wet season mostly during the dry season all year round other pattern _____

What signs tell you that a cow has been killed by a jaguar?

Have you had any successes on your ranch in preventing jaguar attacks? If so, how was it done?

Do you or others from this ranch hunt any wild species for food or other uses? Please list any and state how often they are hunted _____

Do you think some people in Pantanal/ Mato Grosso still shoot jaguars to stop them taking cattle?

yes maybe no don't know

The ranch

What is the current market price (in Reais) of one cow _____ one calf _____

What percentage of income is derived from cattle on this ranch? _____

Does this ranch have any other income sources? yes no

a) If yes, tick all that apply tourism fishing farming (crops) other _____

If you have problems with livestock predation by jaguars on your ranch, can you estimate how much potential income you lose this way per year? _____ Reais

Which cost is higher losing cattle to jaguars each year investing in ways to protect cattle from jaguars

How much does the loss of cattle to jaguars worry you? very much some not much not at all

What other problems affect your annual income from cattle? Please rank, where 1 = most serious

___ flood

___ drought

___ disease (in cattle)

___ theft of cattle

___ jaguars killing cattle

Have you ever received any compensation for cattle taken by jaguars? yes no

If yes

how were you compensated? (rate?) _____

who provided this? _____

did you receive your compensation promptly? _____

Do you feel a compensation scheme should be introduced? yes no maybe/don't know

a) If yes or maybe could you suggest a rate that would adequately compensate you for your loss of cattle to jaguars/ other predators _____

Tourism

Does this ranch earn any money from tourism? yes no

If no, please go to question 37. If yes, please continue

How is your ranch involved in tourism (tick all that apply)

offer accommodation

restaurant on the ranch

provide guided tours (horse, boat, walk)

- sell souvenirs/artisan products
 other _____

Since when has this ranch been involved in tourism? _____

Do tourists want to see jaguars? yes no don't know

Have you taken tourists to see jaguars? yes no

a) If yes, how do you find jaguars? _____

b) How often are you successful in finding jaguars to show tourists? always often sometimes rarely

If your ranch is presently not involved in tourism, do you have any plans to become involved in the future?

yes no maybe/not sure

Conservation

Could you state whether you have observed an increase or decrease in the following animals over the last 5 years?

- puma more same fewer don't know
 maned wolf more same fewer don't know
 anteater more same fewer don't know
 armadillo more same fewer don't know
 tapir more same fewer don't know
 marsh deer more same fewer don't know

Are you aware of any schemes whereby you can gain benefits for being acknowledged as a pro-environment ranch (such as tax reductions or non-monetary prestige awards) yes no

a) If yes please specify _____

If such a system were introduced and you could gain tax benefits or other rewards, you would be

- not interested
 possibly interested, would like to know more about it
 possibly interested, but sceptical of the benefits
 very interested

Your views

Please tick the box which most closely matches how you feel about these statements.

- | | | | | | |
|---|---|--------------------------------|---------------------------------|-----------------------------------|--|
| Jaguars are a threat to cattle | <input type="checkbox"/> strongly agree | <input type="checkbox"/> agree | <input type="checkbox"/> unsure | <input type="checkbox"/> disagree | <input type="checkbox"/> strongly disagree |
| Jaguars are a threat to humans | <input type="checkbox"/> strongly agree | <input type="checkbox"/> agree | <input type="checkbox"/> unsure | <input type="checkbox"/> disagree | <input type="checkbox"/> strongly disagree |
| At this ranch we cannot tolerate jaguars taking any cattle | <input type="checkbox"/> strongly agree | <input type="checkbox"/> agree | <input type="checkbox"/> unsure | <input type="checkbox"/> disagree | <input type="checkbox"/> strongly disagree |
| Jaguars taking cattle is a fact of life / an acceptable risk in ranching | <input type="checkbox"/> strongly agree | <input type="checkbox"/> agree | <input type="checkbox"/> unsure | <input type="checkbox"/> disagree | <input type="checkbox"/> strongly disagree |
| I would be happier if there were no jaguars at all | <input type="checkbox"/> strongly agree | <input type="checkbox"/> agree | <input type="checkbox"/> unsure | <input type="checkbox"/> disagree | <input type="checkbox"/> strongly disagree |
| Jaguars deserve protection | <input type="checkbox"/> strongly agree | <input type="checkbox"/> agree | <input type="checkbox"/> unsure | <input type="checkbox"/> disagree | <input type="checkbox"/> strongly disagree |
| A solution to the problem of jaguar preying on cattle needs to be found | <input type="checkbox"/> strongly agree | <input type="checkbox"/> agree | <input type="checkbox"/> unsure | <input type="checkbox"/> disagree | <input type="checkbox"/> strongly disagree |
| With regard to this ranch and my livelihood, things are fine as they are | <input type="checkbox"/> strongly agree | <input type="checkbox"/> agree | <input type="checkbox"/> unsure | <input type="checkbox"/> disagree | <input type="checkbox"/> strongly disagree |
| Jaguar predation on cattle is a problem that the local authorities should address | <input type="checkbox"/> strongly agree | <input type="checkbox"/> agree | <input type="checkbox"/> unsure | <input type="checkbox"/> disagree | <input type="checkbox"/> strongly disagree |
| The jaguar problem is for each ranch to solve on its own | <input type="checkbox"/> strongly agree | <input type="checkbox"/> agree | <input type="checkbox"/> unsure | <input type="checkbox"/> disagree | <input type="checkbox"/> strongly disagree |
| I/we would like to receive help at this ranch in solving the jaguar depredation issue | <input type="checkbox"/> strongly agree | <input type="checkbox"/> agree | <input type="checkbox"/> unsure | <input type="checkbox"/> disagree | <input type="checkbox"/> strongly disagree |

I benefit directly from tourism	<input type="checkbox"/> strongly agree	<input type="checkbox"/> agree	<input type="checkbox"/> unsure	<input type="checkbox"/> disagree	<input type="checkbox"/> strongly disagree
Tourism in Pantanal is disruptive to my lifestyle and traditions	<input type="checkbox"/> strongly agree	<input type="checkbox"/> agree	<input type="checkbox"/> unsure	<input type="checkbox"/> disagree	<input type="checkbox"/> strongly disagree
I am worried about the effects of the construction of the Hidrovia Transpantaneira	<input type="checkbox"/> strongly agree	<input type="checkbox"/> agree	<input type="checkbox"/> unsure	<input type="checkbox"/> disagree	<input type="checkbox"/> strongly disagree
I am in favour of paving the Pantanal	<input type="checkbox"/> strongly agree	<input type="checkbox"/> agree	<input type="checkbox"/> unsure	<input type="checkbox"/> disagree	<input type="checkbox"/> strongly disagree
The Pantanal needs more development	<input type="checkbox"/> strongly agree	<input type="checkbox"/> agree	<input type="checkbox"/> unsure	<input type="checkbox"/> disagree	<input type="checkbox"/> strongly disagree
The nature / wildlife of the Pantanal is a national treasure	<input type="checkbox"/> strongly agree	<input type="checkbox"/> agree	<input type="checkbox"/> unsure	<input type="checkbox"/> disagree	<input type="checkbox"/> strongly disagree
The nature / wildlife of the Pantanal is adequately protected	<input type="checkbox"/> strongly agree	<input type="checkbox"/> agree	<input type="checkbox"/> unsure	<input type="checkbox"/> disagree	<input type="checkbox"/> strongly disagree
I am worried about the future of the Pantanal's nature / wildlife	<input type="checkbox"/> strongly agree	<input type="checkbox"/> agree	<input type="checkbox"/> unsure	<input type="checkbox"/> disagree	<input type="checkbox"/> strongly disagree
I consider myself aware of conservation problems in the Pantanal	<input type="checkbox"/> strongly agree	<input type="checkbox"/> agree	<input type="checkbox"/> unsure	<input type="checkbox"/> disagree	<input type="checkbox"/> strongly disagree
The Pantanal needs more national parks or nature reserves	<input type="checkbox"/> strongly agree	<input type="checkbox"/> agree	<input type="checkbox"/> unsure	<input type="checkbox"/> disagree	<input type="checkbox"/> strongly disagree
The existing laws are useful in protecting Pantanal wildlife	<input type="checkbox"/> strongly agree	<input type="checkbox"/> agree	<input type="checkbox"/> unsure	<input type="checkbox"/> disagree	<input type="checkbox"/> strongly disagree
I am concerned about overfishing in the Pantanal	<input type="checkbox"/> strongly agree	<input type="checkbox"/> agree	<input type="checkbox"/> unsure	<input type="checkbox"/> disagree	<input type="checkbox"/> strongly disagree
I would like to communicate more with conservation scientists and organisations	<input type="checkbox"/> strongly agree	<input type="checkbox"/> agree	<input type="checkbox"/> unsure	<input type="checkbox"/> disagree	<input type="checkbox"/> strongly disagree