

Determinants of attitudes towards predators in central Kenya and suggestions for increasing tolerance in livestock dominated landscapes

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Appendix Questionnaire used to assess respondents' attitudes towards and tolerance for livestock losses from cheetahs, jackals, leopards, lions, spotted hyenas, striped hyenas, and wild dogs. The questionnaire includes a mixture of closed- and open-ended questions (see text for further details).

Interviewer's name..... Date.....
Interview location..... GPS coordinates.....
Interview language..... District.....

Questionnaire: Attitudes towards predators

This questionnaire is only for research purposes, conducted through Mpala Research Centre and Laikipia Wildlife Forum. Your name is not being recorded and your answers will be kept confidential. Your answers will not affect government policies, such as taxes or compensation. Please be as truthful as possible.

I. Property details

1. Property/community name where you (interviewee) live.....
 2. Property type: commercial ranch group ranch settlement scheme other (specify).....
- If answer is commercial: Is this property the owner's primary source of income? yes no
3. Is there any wildlife tourism currently on the property/community? yes no
 4. Is there any livestock currently on the property/community? yes no
 5. Does most of the property/community income come from (choose ONE answer):
 livestock tourism agriculture other

If answer is NOT tourism, what indirect benefits does the property/community receive from wildlife? (for example, radio fees paid, school built, or other). Answer can be none.....

6. Is there a wildlife conservancy currently on the property/community? yes no
If no is the property/community preparing to start a conservancy in the next two years? yes no

II. Experience with local predators

7. Please identify the predators in the photos (if predator names known ONLY in a language other than English or Kiswahili, write the predator name in the known language, and write the name of the language beside the answer).

- a)..... b).....
c)..... d).....
e)..... f).....
g)..... h).....

8. (a) Which of the following predators occur on your property as a whole (yes, no, or don't know)?

(b) If you currently have a conservancy, how frequently are the predators detected (sight, sound, or tracks) in the conservancy compared to the rest of the property (less, same, more, don't know; mark n/a if not on property)?

Predator	On property/ community as a whole	In conservancy
Cheetah	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Jackal	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Leopard	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Lion	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Spotted hyena	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Striped hyena	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Wild dog	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a

9. (a) Which of the following wild prey occur on your property as a whole (yes, no, or don't know)?

(b) If you currently have a conservancy, how frequently are the prey detected (sight, sound, or tracks) in the conservancy compared to the rest of the property (less, same, more, don't know; mark n/a if not on property)?

Prey	On property/ community as a whole	In conservancy
Dik Dik	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Impala	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Gazelle	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Plains zebra	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Grevy's zebra	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Kudu	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Hartebeest	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Warthog	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a
Klipspringer	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	<input type="checkbox"/> less <input type="checkbox"/> same <input type="checkbox"/> more <input type="checkbox"/> don't know <input type="checkbox"/> n/a

10. (a) Indicate how abundant you think the following predators are currently (2004) in the District (absent, rare, or common).

(b) Indicate how abundant you think the predators are outside the District, in the rest of Kenya (absent, rare, or common).

Predator	District	Outside District in general
Cheetah	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know
Jackal	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know
Leopard	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know
Lion	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know
Spotted hyena	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know
Striped hyena	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know
Wild dog	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know	<input type="checkbox"/> absent <input type="checkbox"/> rare <input type="checkbox"/> common <input type="checkbox"/> don't know

11. Which, if any (you don't have to choose any), of the following predators do you think are in danger of going extinct in Kenya?

cheetah jackal leopard lion spotted hyena striped hyena wild dog none

III. Attitudes towards predators

12. Given the choice, would you prefer to have the following predators on your property? (Yes, no, or don't know). You may give a reason why.

Predator	Yes, no, or don't know	Reason
Cheetah	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	
Jackal	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	
Leopard	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	
Lion	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	
Spotted hyena	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	
Striped hyena	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	
Wild dog	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know	

13. Based on their current (2004) numbers on your property, please indicate whether you would like numbers of each predator to decrease, stay the same, or increase? You may give a reason why.

Predator	Decrease, same, or increase	Reason
Cheetah	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Jackal	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Leopard	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Lion	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Spotted hyena	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Striped hyena	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Wild dog	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	

14. Do you think that sport hunting of predators should be allowed in Kenya? yes no

Why?.....

.....

.....

.....

.....

If yes, answer question 15.

If no, do not answer question 15.

15. If sport hunting of all predators was allowed, please indicate whether you would like the numbers of the following predators on your property/community to increase, decrease or stay the same:

Predator	Decrease, same, or increase	Reason
Cheetah	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Jackal	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Leopard	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Lion	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Spotted hyena	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Striped hyena	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Wild dog	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	

Only answer question 16 below if you DO NOT have tourism on your property right now. If you do have tourism, skip to section IV. Livestock (question 17).

16. If you were to start tourism, would you like predator numbers on your property/community to decrease, stay the same, or increase?

Predator	Decrease, same, or increase	Reason
Cheetah	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Jackal	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Leopard	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Lion	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Spotted hyena	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Striped hyena	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	
Wild dog	<input type="checkbox"/> decrease <input type="checkbox"/> same <input type="checkbox"/> increase	

IV. Livestock

17. Please rank the following predators in terms of their effect upon cattle in the District (1 = highest impact, 7 = lowest impact), and then rank them in terms of effect on goats & sheep (1 = highest impact, 7 = lowest impact). (Interviewer: write n/a if interviewee does not think the predator attacks livestock.)

Predator	Cattle	Goats & sheep
Cheetah		
Jackal		
Leopard		
Lion		
Spotted hyena		
Striped hyena		
Wild dog		

18. Did you lose any livestock to predators last year (2003)? yes no

If no, skip to section V. Lethal control (question 19).

If yes, please indicate the approximate number of your livestock that were lost to each predator last year (2003).

(Interviewer: If 0, please fill 0 in the box, and do not leave any boxes blank. Write n/a in the box if interviewee does not own the livestock species)

Predator	Cattle	Camels	Donkeys	Goats & sheep
Cheetah				
Jackal				
Leopard				
Lion				
Spotted hyena				
Striped hyena				
Wild dog				

V. Lethal control

19. Last year (2003), did you kill or allow predators to be killed on your property/community (by staff, other ranch/community members, or KWS)?

yes no

20. If no skip to question 22.

If yes,

which predators were killed?.....

how many individuals of each were killed?.....

why were they killed?.....

how were they killed?.....

21. Did the killing reduce livestock losses on your property/community?

greatly some not at all

22. Indicate the number of cattle and sheep & goats (shoats) you would tolerate losing to predators before you would try to kill the predator responsible. Or you may indicate whether you would not kill the predator no matter how many livestock were killed OR whether you would try to kill the predator before it killed any livestock (zero tolerance). And please specify how you would be likely to kill the predator responsible.

(Interviewer: write n/a if interviewee does not think the predator attacks livestock.)

Predator	Number of livestock willing to loose	How would you kill the predator?
Cheetah	___cattle ___ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance	
Jackal	___cattle ___ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance	
Leopard	___cattle ___ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance	
Lion	___cattle ___ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance	
Spotted hyena	___cattle ___ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance	
Striped hyena	___cattle ___ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance	
Wild dog	___cattle ___ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance	

23. Did you manage or own livestock as an adult (over 18 years old) 20 years ago? yes no

If no, please skip to section VI. Wild dogs (question 25).

If yes please answer question 24 below.

24. If asked question #22 20 years ago, how would your answers have been different? Indicate the number of cattle or sheep & goats (shoats) you would have tolerated losing to predators before you would try to kill the predator responsible. Or you may indicate whether you would not have killed the predator no matter how many livestock were killed, whether you would have tried to kill the predator before it killed any livestock (zero tolerance), or if your answers would have been the same as now (2004). You may also give a reason why.

Predator	Number of livestock willing to loose	Reason
Cheetah	____cattle ____ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance <input type="checkbox"/> same <input type="checkbox"/> don't know	
Jackal	____cattle ____ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance <input type="checkbox"/> same <input type="checkbox"/> don't know	
Leopard	____cattle ____ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance <input type="checkbox"/> same <input type="checkbox"/> don't know	
Lion	____cattle ____ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance <input type="checkbox"/> same <input type="checkbox"/> don't know	
Spotted hyena	____cattle ____ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance <input type="checkbox"/> same <input type="checkbox"/> don't know	
Striped hyena	____cattle ____ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance <input type="checkbox"/> same <input type="checkbox"/> don't know	
Wild dog	____cattle ____ shoats <input type="checkbox"/> wouldn't kill <input type="checkbox"/> zero tolerance <input type="checkbox"/> same <input type="checkbox"/> don't know	

VI. Wild dogs

25. Have you ever seen wild dogs in the wild in Kenya? yes no don't know

If yes, have you ever seen wild dogs on your property/community? yes no don't know

26. If you have seen wild dogs in the wild in Kenya

When was the last time you saw wild dogs (month and year)?.....

Where did you last see them?.....

How many did you last see?.....

27. Do you think wild dogs have ever been on your property/community? yes no don't know

If they ever disappeared, when did they disappear from your property/community (year)?.....

If they returned, when did they come back to your property/community (year)?.....

28. If you saw wild dogs in 2003 in Kenya

How many times did you see wild dogs last year?.....

What was the largest number of wild dogs you saw in one group last year?.....

29. Over the last 5 years, do you think that wild dog numbers in the District are:

decreasing stable increasing don't know

30. Do you think wild dogs ever kill livestock?

yes no don't know

Why?.....

VII. Comments

31. Are there any solutions you would suggest to promote the coexistence of people and predators?

32. Are there any other comments you would like to make about predators?

VIII. Personal details

33. If commercial, position on property: owner manager other (specify).....

34. Age..... 35. Gender: male female

38. Ethnic group..... 37. Highest education.....

38. If NOT commercial, does most of your household's income come from (choose ONE answer):

livestock tourism agriculture employment other than tourism other

Interviewer's comments (to be filled by interviewer AFTER interview is complete):