

Estimating presence of maned wolf In northern Argentina from local Knowledge: Preliminary Results

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Abstract

The distribution of Maned wolf includes areas from southern Brazil to Northern Argentina. In this study, a survey was carried out in the provinces of Corrientes and Chaco, in Northern Argentina, in order to assess the actual distribution of the species and the attitudes of local people towards its presence. The methods used was direct interview to local people who were visited during an intense field campaign in October-December 2003. The surveyed area extended 200,000 km² ca. and 42.5% of the interviewees (N total = 398) reported to have sighted the maned wolf within the last year. Locations where presence was detected were described to be flooded grasslands in 66.1% of the cases, suggesting maned wolf actively prefers such type of environments. Interviews revealed that maned wolf are not considered a threat for domestic animals (74.5% of cases reported no damage suffered). 43% of the interviewees stated that the presence of maned wolf may be positive for the environment, but a similar proportion also (42%) though the species has no impact on it. These preliminary results highlight a general positive attitude even when not having ever seen the animal, suggesting the conservation of the species might be possible in coexistence with local people.

Introduction

Maned wolf (*Chrysocyon brachyurus*) is a “at low risk / near threatened” species and its ecology in the wild is generally poorly known. Integrated studies on maned wolf diet and spatial/behavioural ecology are limited to Brazilⁱ and, lately, Boliviaⁱⁱ (Soler *et al.* this volume). This lack of information, together with a missing updated estimate of the geographical distribution, makes the development of appropriate conservation strategies extremely difficult. The local and national strategies adopted so far included the total protection of the species and its declaration as a Provincial Natural Monument. Nevertheless, the low density at which the species is believed to occur in most of the countries it has detected to be present, makes the control of illegal hunting and its management generally very difficult. The main threats to its conservation are believed to be the uncontrolled illegal hunting and the modification of its natural habitat (Brasil, Bolivia and Paraguay). Illegal hunting is mostly driven by popular beliefs and the conflicts with human activities for its predatory habits. The proven damage it causes to domestic animals, though, is hardly been proven. The areas particularly associated with maned wolf presence are indicated to be open grasslands periodically inundated^{iii,iv}.

The paucity of data and their prevalently being relative to a couple of decades ago call for urgent studies that would provide information on actual geographical distribution and the real impact the species has on the local culture and economy and vice-versa in order to be able to develop land development and management schemes sound with the conservation of biodiversity.

Within this background, the present study aimed at assessing the presence and impact of maned wolf in two provinces of Northern Argentina (Corrientes and Chaco)

though an intense field survey. Given the extension of the distribution range if the Maned wolf, and the resources needed for carrying out a direct field study that would actually assess the presence of Maned wolf recording direct sightings and tracks, and the analysis of diet in the wild together with radio-telemetry technique, the survey was based on direct interviews with local people. The preliminary data presented here shows that the information collected is encouraging and suggests local knowledge may reveal a great deal of data necessary for filling the knowledge gap on the ecology of this nationally protected species.

Methods

The field campaign was conducted in October-December 2003, when a team of 4-6 people travelled across the provinces of Chaco and Corrientes with a Toyota pickup 4x4 truck, driving a total of 17,328 km across the region (fig. 1). Direct interviews to local people were conducted every day, with one-two members of the team interviewing one person at a time. Answers not given by the interviewee (but by some other people around, e.g., friends or family members) were not recorded. Interviews were semi-structured with open conversation leading to the relevant questions. People who declared having sighted a Maned wolf were asked to describe it in order to assess whether they were able to report accurate information. The interview contained four sections: (1) on general knowledge about presence of different species of carnivores, (2) on presence of Maned wolf and damage suffered, (3) on attitudes towards the presence of Maned wolf, and finally (4) on personal details. Preliminary analyses of interviews included percentage counts of different information given and the intensity of simultaneous responses.

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Figure 1. The area surveyed with the itinerary driven during the field campaign

Results

A total of 398 interviews were finalised during the field campaign. Of these, 228 (57,3%) reported the presence of Maned wolf through direct sight. The

sample of positive presence response was divided into groups according to the time elapsed since the last sight, and 40,5% of the reported sightings were not older than 6 months, while 35% were older than 12 months (fig. 2).

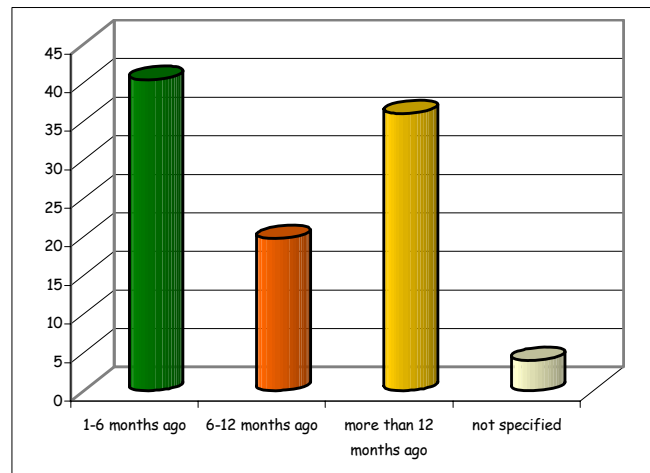


Figure 2. The percentage of sightings per time group

The environments from where the sightings were reported appear to be mainly riverine areas (either

cañadas , 42,8%, or *esteros*, 26,3%), followed by woodlands and grasslands (fig. 3).

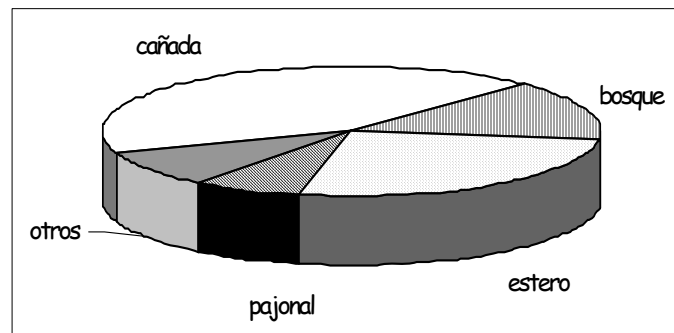


Figure 3. The percentages of environment types where sightings were reported in the interviews

The majority of interviewees believes that Maned wolf does not kill and eat domestic animals. This was reported also from a large proportion of people who did

have domestic animals, declaring they never had suffered damage caused by Maned wolves (fig. 4).

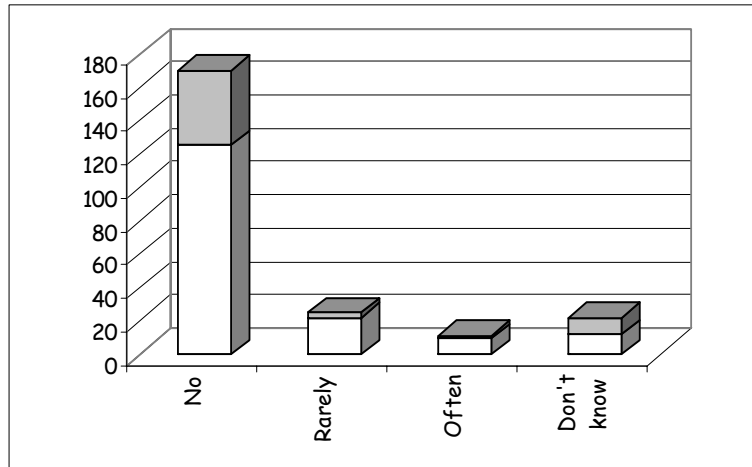


Figure 4. The number of interviewees who answered the question: Does Maned wolf kill domestic animals? Gray portion of the bar shows respondents who did not have domestic animals, while white portion represent interviewees who had domestic animals

The effect of the Maned wolf presence on the environment is considered to be negative for only 8% of the interviewees, while 42% thought it is neutral and 43% thought its presence might be positive. The answers did not appear to be associated with different proportions of interviewees who owned domestic animals, given that 68% and 77% of those who thought the effect of Maned wolf presence on the environment was either positive or indifferent were domestic animal owners, respectively.

More than half of the respondents had a positive attitude towards Maned wolf, stating they like it, while 36% responded neutrally. Only 8,5% of the interviewees had a negative attitude, of which 3% stated they try to kill it whenever they sight it. The correspondence between the attitude and the idea of the impact that the presence of Maned wolf has on the environment was high, suggesting there's no independence between the two variables ($\chi^2 = 232,012$, d.f. = 6, $p \ll 0,001$).

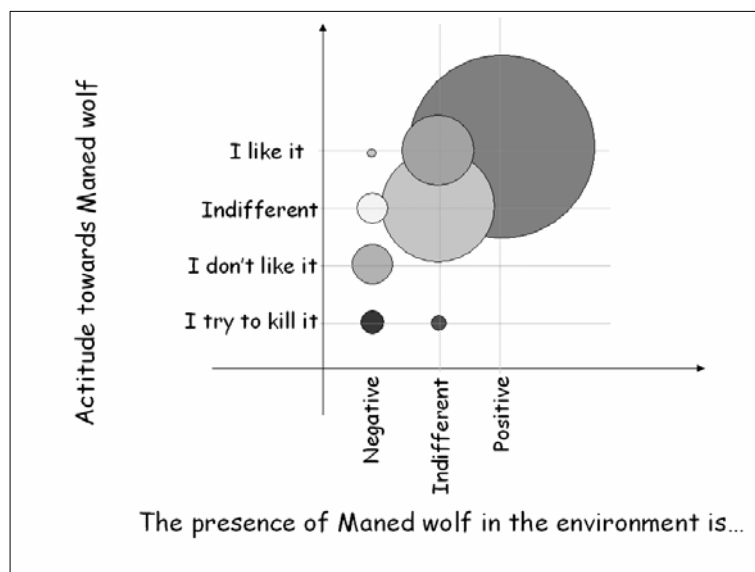


Figure 5. The intensity of correspondence between responses on Attitude towards Maned wolf and perception of impact that presence of Maned wolf may have on the environment

Most interviewees (65%) had a positive attitude towards the interview and were willing to contribute to the project. Only 1,5% had a negative attitude, while up to 25% of people interviewed had a very positive attitude and showed a particular interest in the project.

Preliminary considerations and way forward

The information gathered through direct interviews to local people suggests the overall conservation situation may be positive for the Maned wolf in the region visited. This emerges particularly from the results obtained from the interview section on attitude and perception of the impact that the species may have on the environment. Nevertheless, the low percentage of recent (< 6 months) sightings in such a large area may indicate that the presence of Maned wolf is scarce. This should be confirmed through direct surveys with scientifically-based studies as radio-tracking or intensive field surveys aimed at tracking small parcels of the region.

The interest of local people can be taken as a positive sign for the future conservation of Maned wolf, and sensitisation campaigns should build upon this positive baseline. Local radio interviews and local

newspaper articles increase the level of involvement of local people and in some cases we received calls from people who heard us talking on the radio as they wanted to contribute to the project. This, although providing a biased information in terms of attitude and perception of the species' presence, suggests a positive trend may be possible if fed with local-based conservation activities.

The project will continue with the modelling of habitat suitability for Maned wolf over the entire Northern Argentinean region, including the provinces of Formosa and Santa Fé.

Aknowledgements

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