

Distribution update

Continued presence of the maned wolf in Peru

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Abstract

The maned wolf *Chrysocyon brachyurus* was first documented in east Peru in 1976, at the extreme west of the species distribution. The most recent record is from 1996, when the species was reported to be scarce in the Pampas del Heath region, the only tropical humid savannah in the Peruvian territory. We searched the area for signs, listened for calls and undertook a camera-trap study. We confirmed the maned wolf presence in Pampas del Heath via vocalizations, tracks and latrines, and camera-trap pictures. Using camera-trap data we estimated the population to be smaller to the 40 individuals initially estimated for the area, and one that is unlikely to be viable without genetic interchange with the neighbouring Bolivian population.

Introduction

The maned wolf *Chrysocyon brachyurus* was first reported in Peru by Hoffman et al. (1976) in Pampas del Heath, when its population was considered intact, without pressure, and estimated to be around 40 individuals (equivalent to 0.7 individuals/km²). Pampas del Heath is an extension of the Bolivian-Paraguayan Gran Chaco and one of the few existing areas of Amazonian marshland not severely affected by humans. The presence of the maned wolf in Peru was a deciding factor for the protection of this region in 1983, when it was declared a National Sanctuary, and then in 1996, when it became part of the Bahuaja-Sonene National Park. It is also an important part of the Vilcabamba-Amboro Corridor. At the time the species was apparently easily observed, and was reported to be seen regularly hunting native guinea pigs *Cavia aperea*. Maned wolves are red listed as Near Threatened (Rodden et al. 2012), distributed from northeastern Brazil to northern Argentina (Figure 1).

Maned wolves were again reported in Pampas del Heath during a Rapid Assessment conducted in 1992 (Emmons et al. 1994): “Maned

wolves were previously found in the Peruvian pampas (Hoffmann et al. 1976; V. Darío Cruz, pers. comm.), but we found no evidence of their presence, despite a search for spoor. However, subsequent to our expedition, park guards collected some maned wolf faeces from somewhere in the Sanctuary (L. Emmons, pers. comm.)”. In 1996 (2-25 June), another biological evaluation found that the maned wolf was still present in Pampas del Heath “but is very scarce” (Foster et al. 2002). Thus, the maned wolf was initially reported to be locally common, with an estimated population of 40 individuals in 1976, but was reported to be scarce in 1992 and 1996, implying a decline.

Methods

The Pampas del Heath is an area of open tropical savannah habitat in two disjunct areas (Pampa Pilcoplancha and Pampa Juliaca) located just west of the Heath River in the Madre de Dios region of Peru. The total area of tropical savannah habitat is 65.5km² (analysis of a Landsat image taken on 24 August 2010). The habitat is open grassland, interspersed with small woodlots and areas of palm swamp, maintained by regular burning by local peoples who visit the

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area to hunt and collect palm fruits (Figure 2). In recent years Pampa Pilcoplancha has been burnt rarely as it is further from the river, and it is now very overgrown and becoming wooded. Pampa Juliaca has continued to be burned on an annual basis and maintains its open grassland habitat.

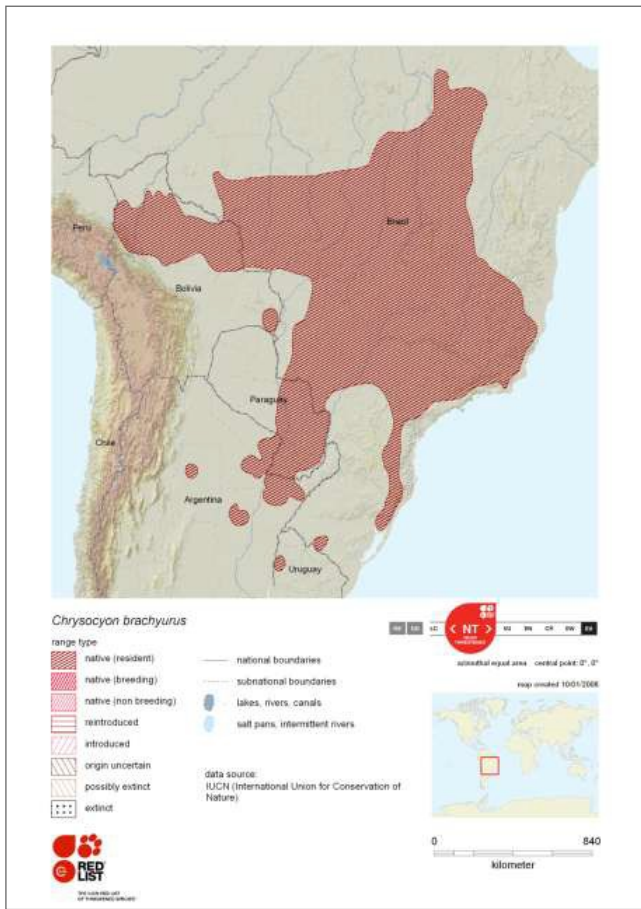


Figure 1. Distribution map of the maned wolf (Rodden et al. 2008)



Figure 2. Habitat of Pampas del Heath, Peru, September 2009. (Photograph: R. Williams)

From 27-30 September 2009, a short preliminary evaluation of the Pampa Juliaca was undertaken with the aim of becoming familiar with the ecosystem and assessing multiple taxonomic groups (Birds, Mammals, Reptiles, Odonata). An effort was made to visit all microhabitats (recently burned grassland, unburned grassland, woodlots, palm swamps, flooded grassland, mixed scrub areas and gallery

forest) within a total area of some 2.5km². Trails and areas of bare soil were examined for tracks and all scat found was examined.

From 26 August to 1 September 2010 a team returned to the area to install 40 camera-traps (Stealthcam, 36 exposure roll of 400 ISO print film) in 20 trap stations (Figure 3), placed in a 500m grid, covering an area of 4.5km². During this visit the pampas was actively burning so we only placed cameras in recently burned areas. The cameras were left in place for 61 days, and then recovered, films processed and digitalized.

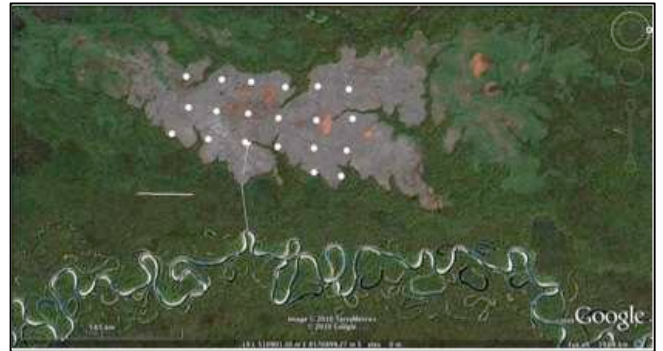


Figure 3. Camera placement in Pampa Juliaca

Results

During a brief general evaluation of the area in 2009, we found fresh tracks (Figure 4) and scat, and heard the call of a maned wolf. In 2010 vocalizations were heard on two occasions, once in early morning and once at night, and tracks and scat were also found (Figure 5). We obtained 759 photos in at least 27 days of operation (batteries and films did not last for 61 days). Several cameras failed to record date and time. Two maned wolf photographs were obtained from the camera-traps at the same site, both of adult individuals - possibly the same individual (Figure 6). These records are the first confirmation of the species persistence in the area since 1996.



Figure 4. Maned wolf track, Pampas del Heath, Peru, September 2009. (Photograph: R. Williams)

Discussion

From 1976 to 1992 the maned wolf appears to have declined in numbers in the Pampas del Heath. The density estimate for 1976 was 0.7nd/km², giving a population estimate of 40 individuals for the area. Whilst we are unable to calculate a density estimate from our data, we conclude that the species is now scarcer and has declined, and it is

supported by the evaluations made in 1992 and 1996. The reasons for this decline are unknown but may well be related to increased frequency of visits to the Pampas del Heath by *Ese Eja* native communities to fish and hunt. In the last decade these communities have obtained motors for their boats and now make regular trips to the area to fish, hunt, and to harvest turtle eggs and palm fruits (Figure 7). They often travel with domestic dogs, which in this region tend to carry parvovirus and distemper (Leite Pitman et al. 2003), which could have impacted on maned wolves. This maned wolf population may be a satellite from a larger maned wolf population in the Bolivian Pampas, estimated to be less than 1,000 animals (Rodden et al. 2008). The Peruvian Pampas del Heath is separated from the Bolivian Pampas by approximately 8km of lowland rainforest and the Heath River. Although this is not a large distance for a maned wolf to travel, it is possible that this population is becoming isolated and might be suffering from inbreeding, making a population genetics study of animals from Peru and Bolivia a priority.



Figure 5. Maned wolf latrine, Pampas del Heath, Peru, August 2010. (Photograph: R. Williams)



Figure 6. Maned wolf, Pampas del Heath, Peru, September 2010. (Photograph: R. Williams and R. Leite Pitman/Rufford Small Grants Foundation)

Conservation recommendations

The presence of maned wolves was one of the reasons for the creation of the Bahuaja-Sonene National Park and is listed as one of its conservation objectives (del Valle 1995 and INRENA 2003). In order to safeguard the species in the area we make the following recommendations:

- The tropical savannah habitat of the Pampas del Heath should be maintained through active management of controlled burning coordinated with local communities and undertaken by park authorities on a rotational cycle;

- An analysis should be taken of areas that were probably recently pampas habitat to assess the possibility of returning them to that state;
- Hunting by local peoples should be effectively controlled;
- Domestic dogs should not be permitted in the Heath River watershed upstream of the protected area boundaries;
- Binational conservation planning and protection coordination between Bolivia and Peru is necessary to fully protect the areas of pampas habitat in both countries.
- A more detailed long-term study to assess the maned wolf population in both the Peruvian and Bolivian pampas should be undertaken using camera-traps and genetic analysis;
- Analysis of disease prevalence should be undertaken.



Figure 7. Hunters from *Ese Eja* communities regularly visit the Pampas del Heath, September 2010. (Photograph: R. Williams)

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Biographical sketches

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