



# Livestock predations by puma (*Puma concolor*) in the Argentine Espinal, southern Buenos Aires Province



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## Introduction



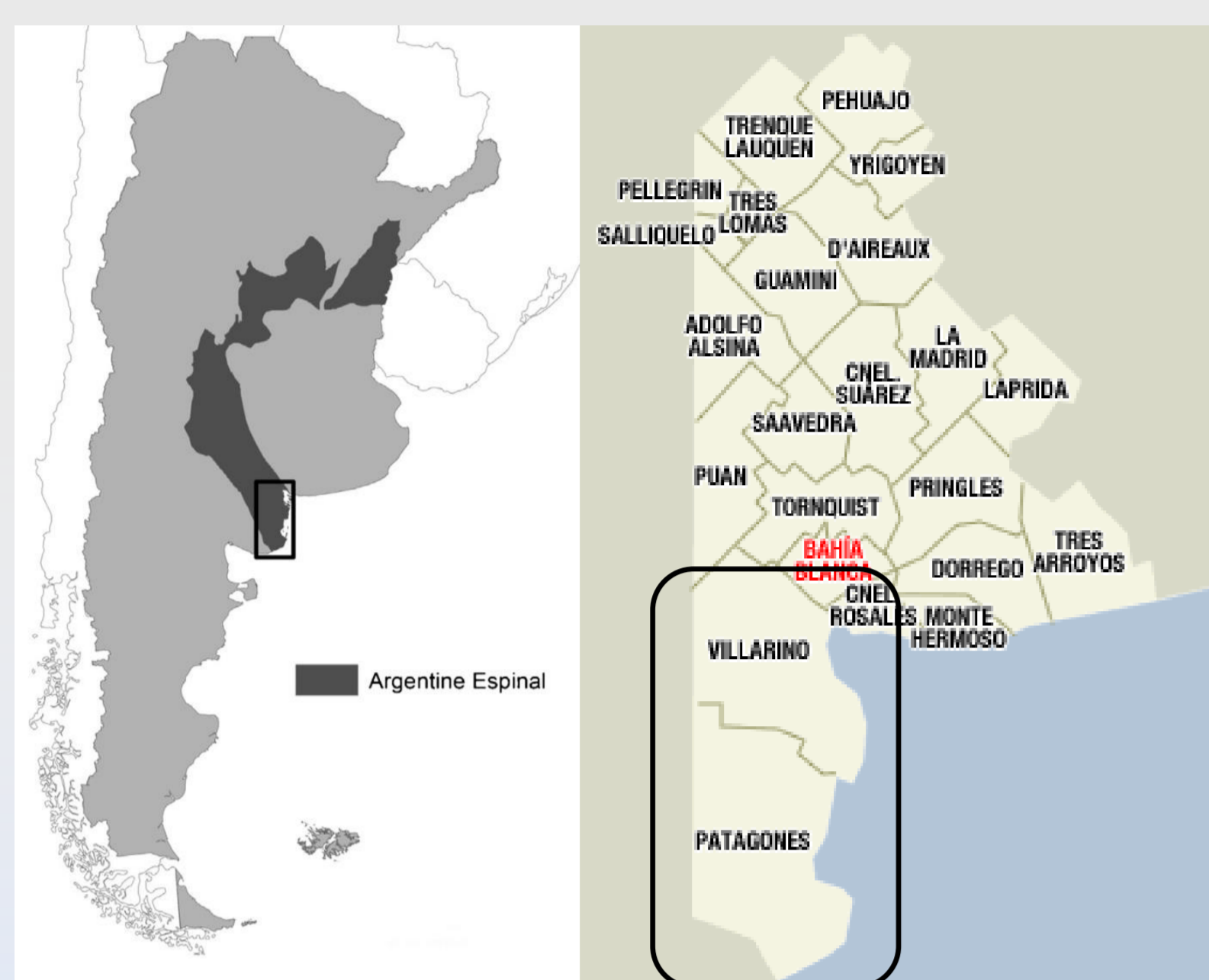
Livestock predation is one of the most frequent sources of conflict between humans and carnivores throughout the world, representing a serious problem for wildlife conservation. We investigated the conflict between pumas and ranchers in two counties (Villarino and Patagones) of Buenos Aires Province (Argentina). During the last decades, the natural habitats of this region have been dramatically modified by the expansion of livestock raising and agriculture, which are the principal sources of income for local people.

This study aims to characterize puma predation and describe its effects in this region.



## Study Area and Methods

**Study area:** Villarino and Patagones Counties (25.000 km<sup>2</sup>), Ecoregion Espinal, Argentina.



Semi-structured interviews

**Methods:** Semi-structured interviews, workshops with ranchers, kill site inspections. Six years of data collection (2007-2008; 2010; 2013-2015).

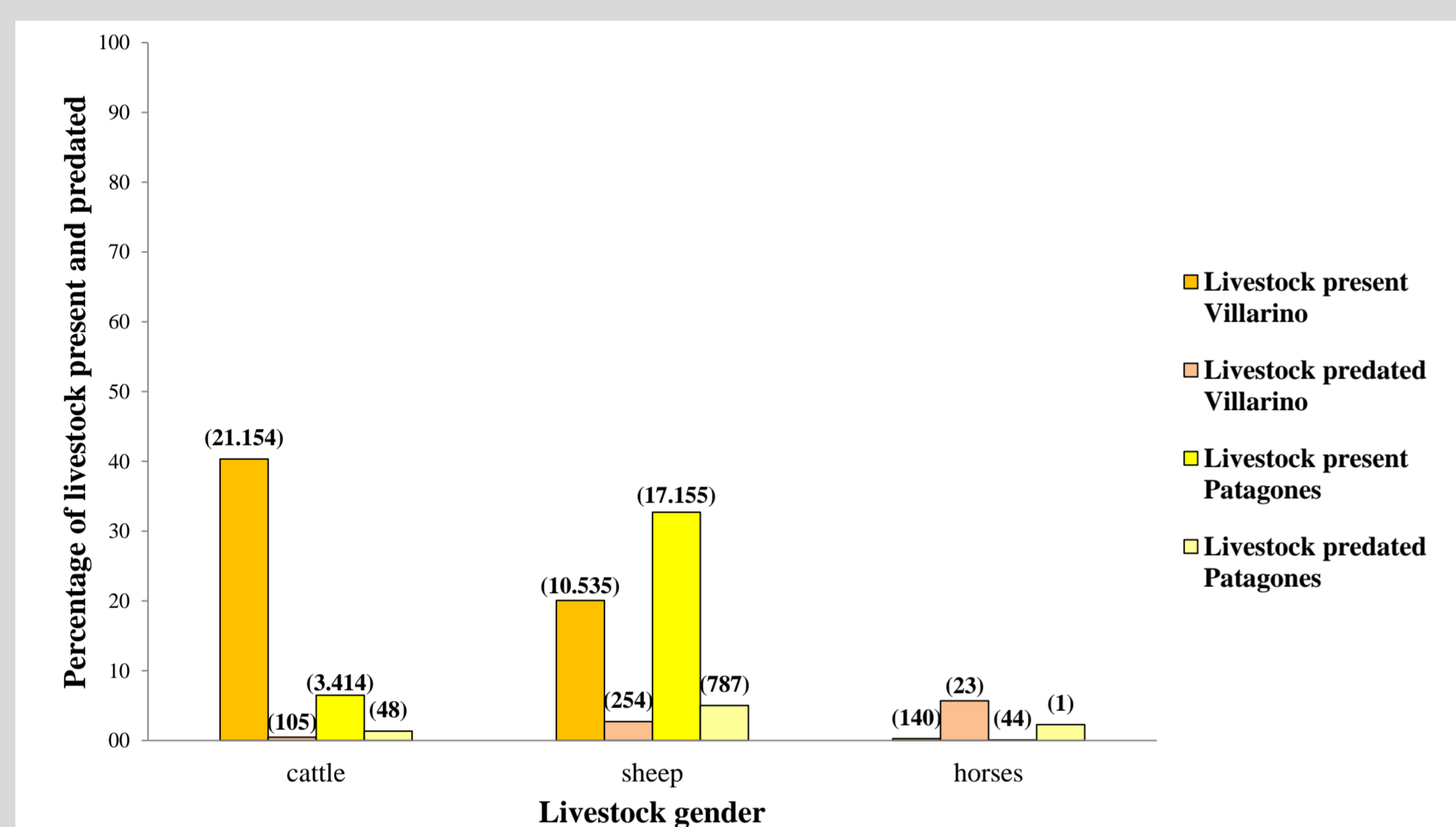


Workshops

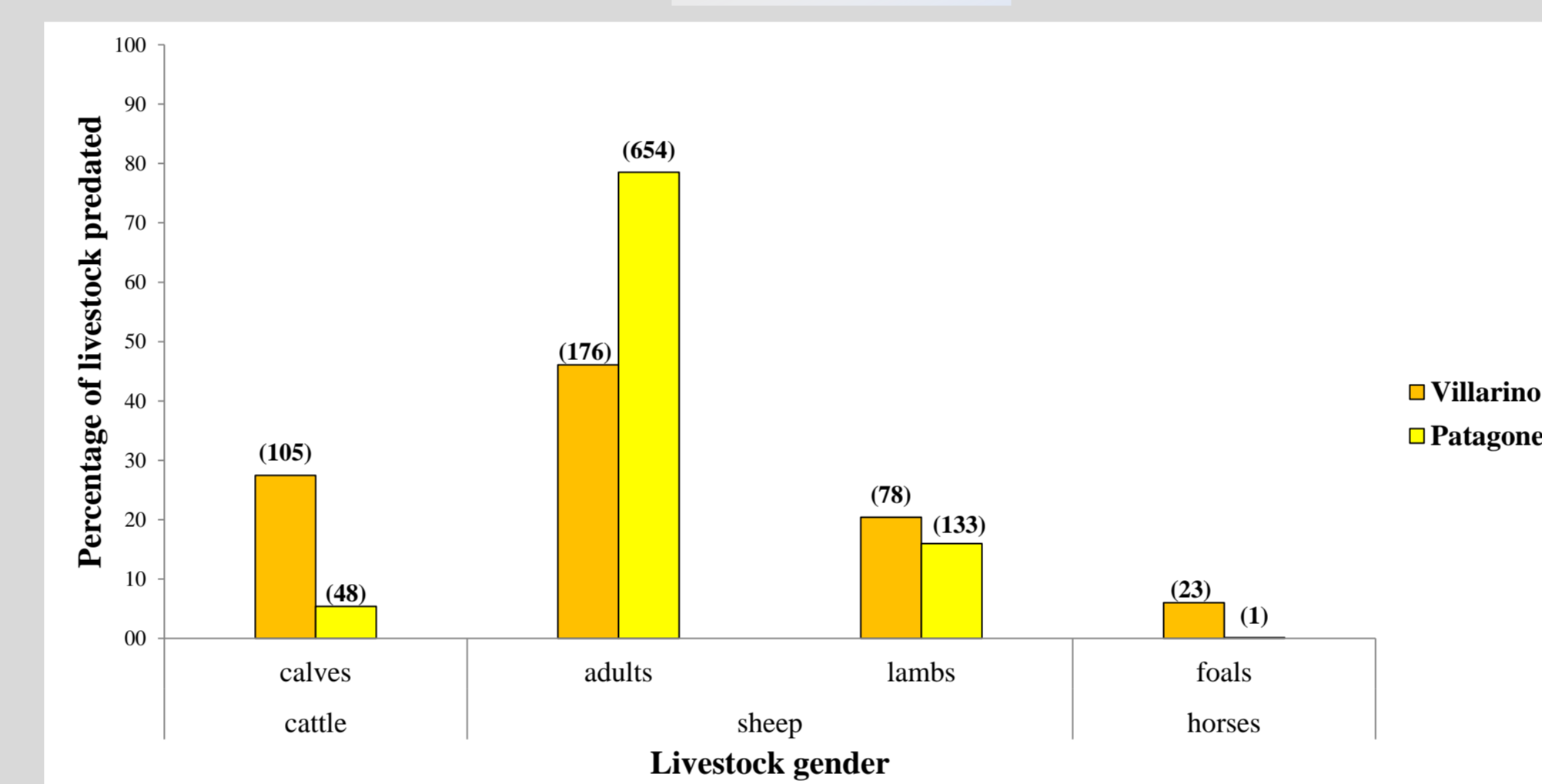


Kill site inspections

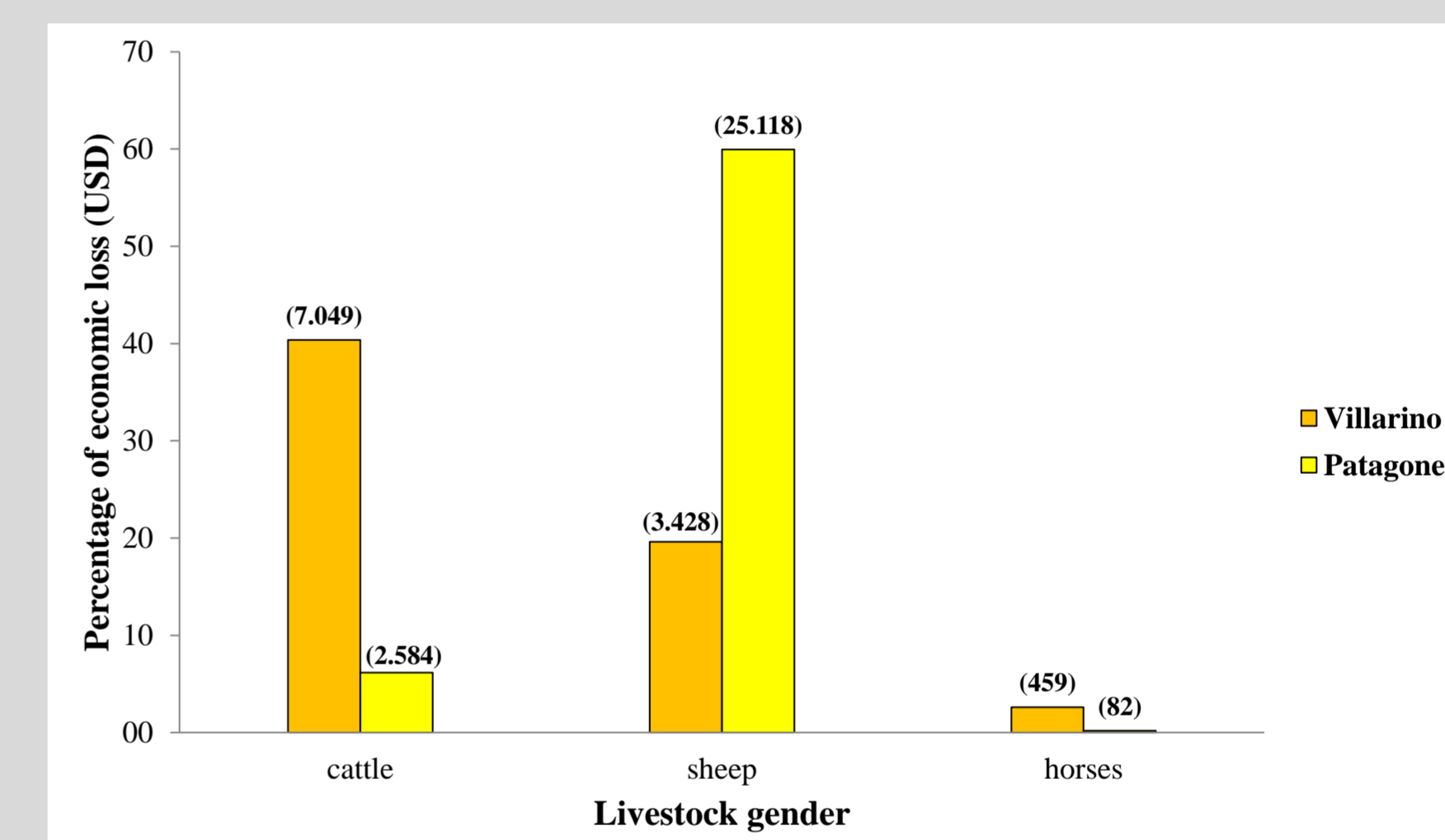
## Results



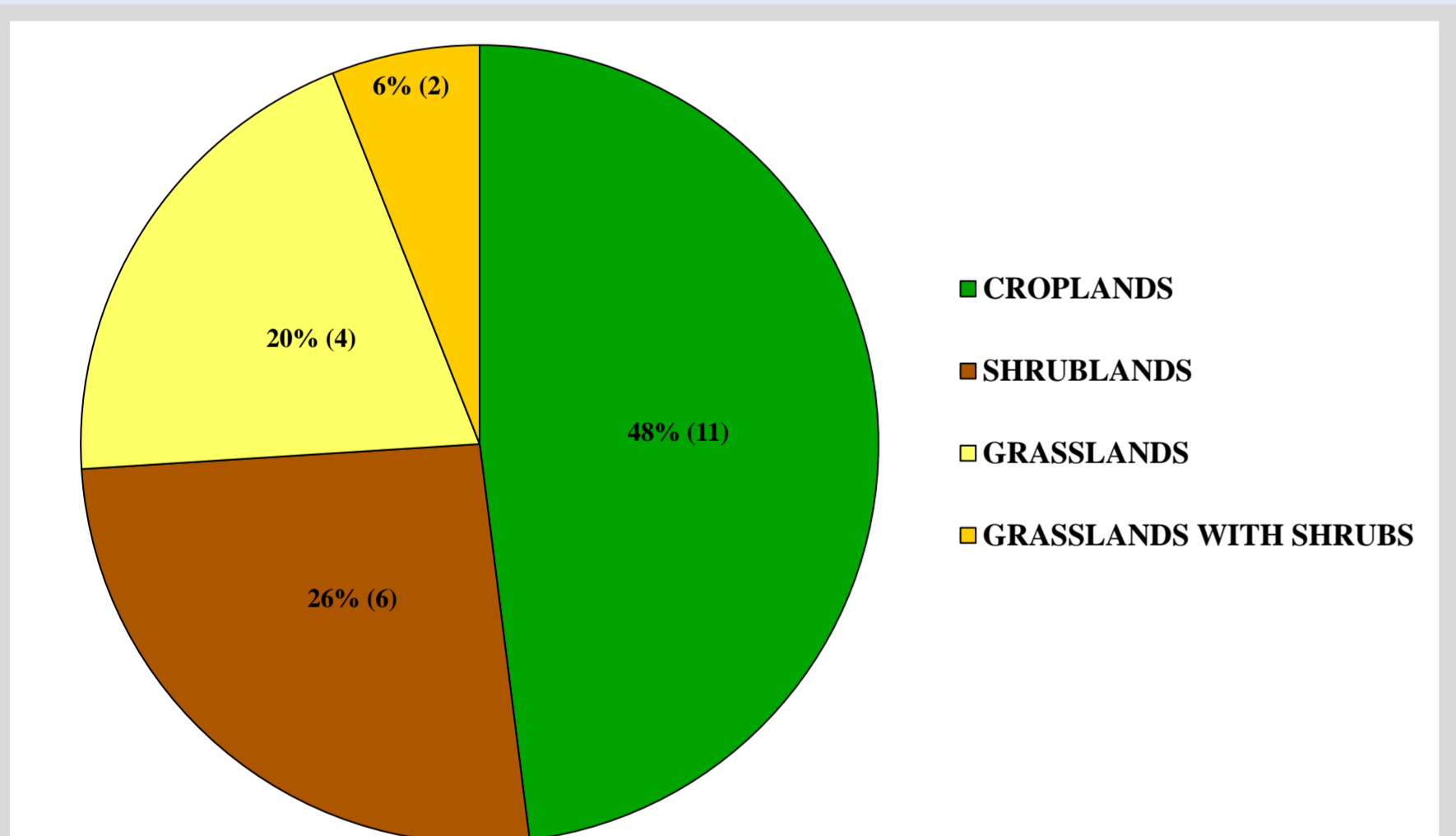
Percentage of livestock present and predated by puma (2007-2015).



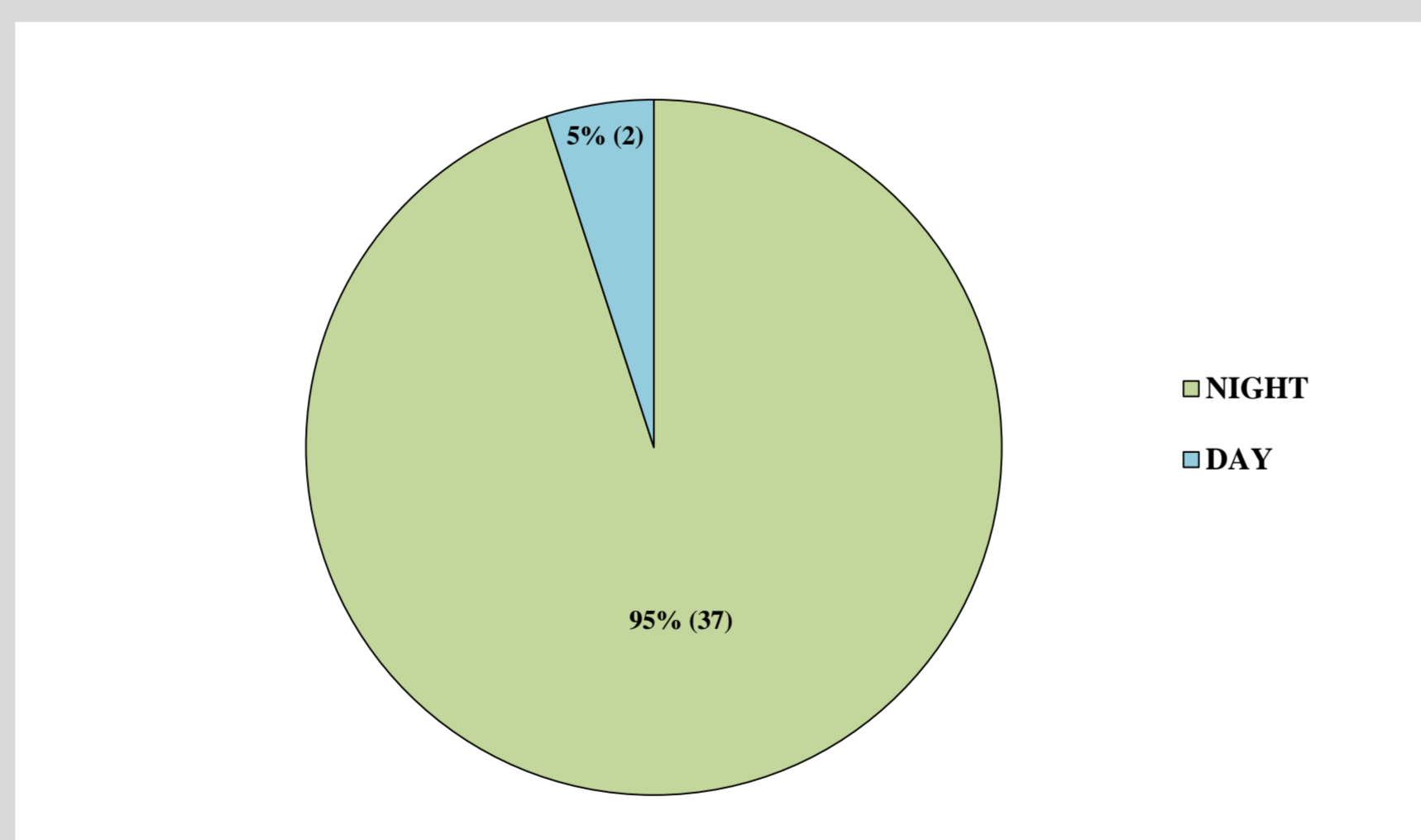
Percentage of age class of livestock depredated by puma (2007-2015).



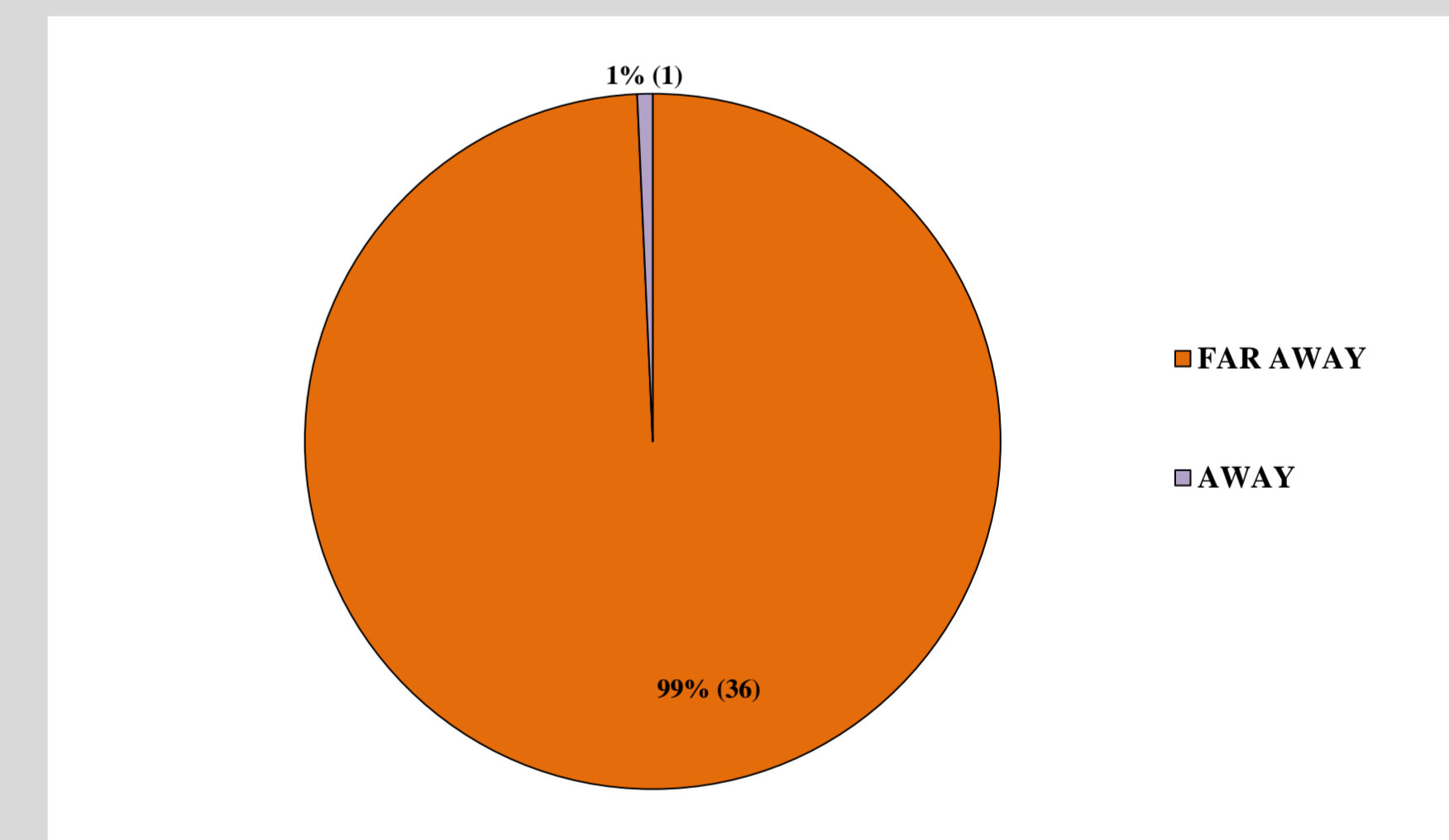
Percentage of economic loss due to puma depredation (2007-2015).



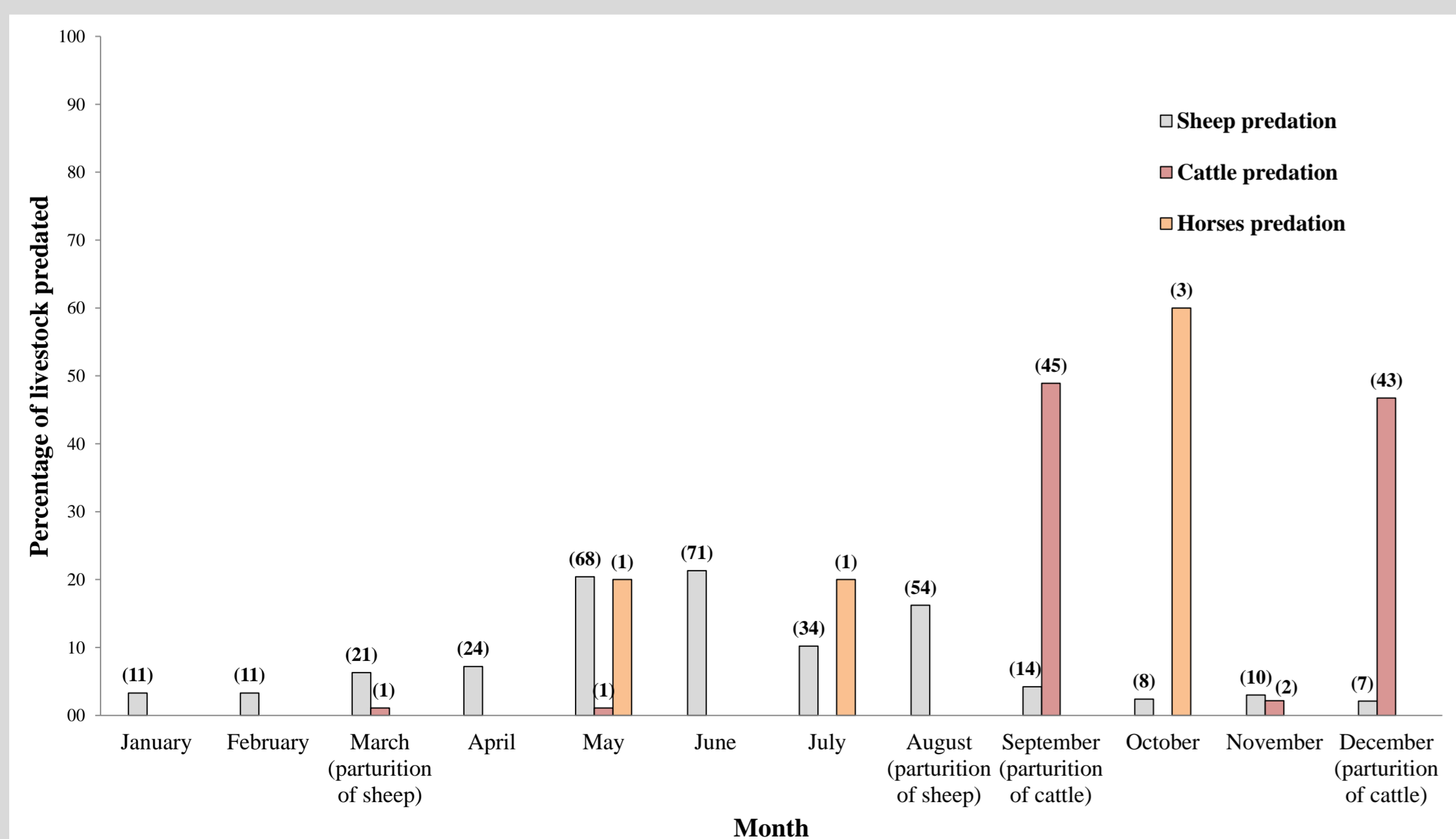
Habitat of puma kill sites (2013-2015).



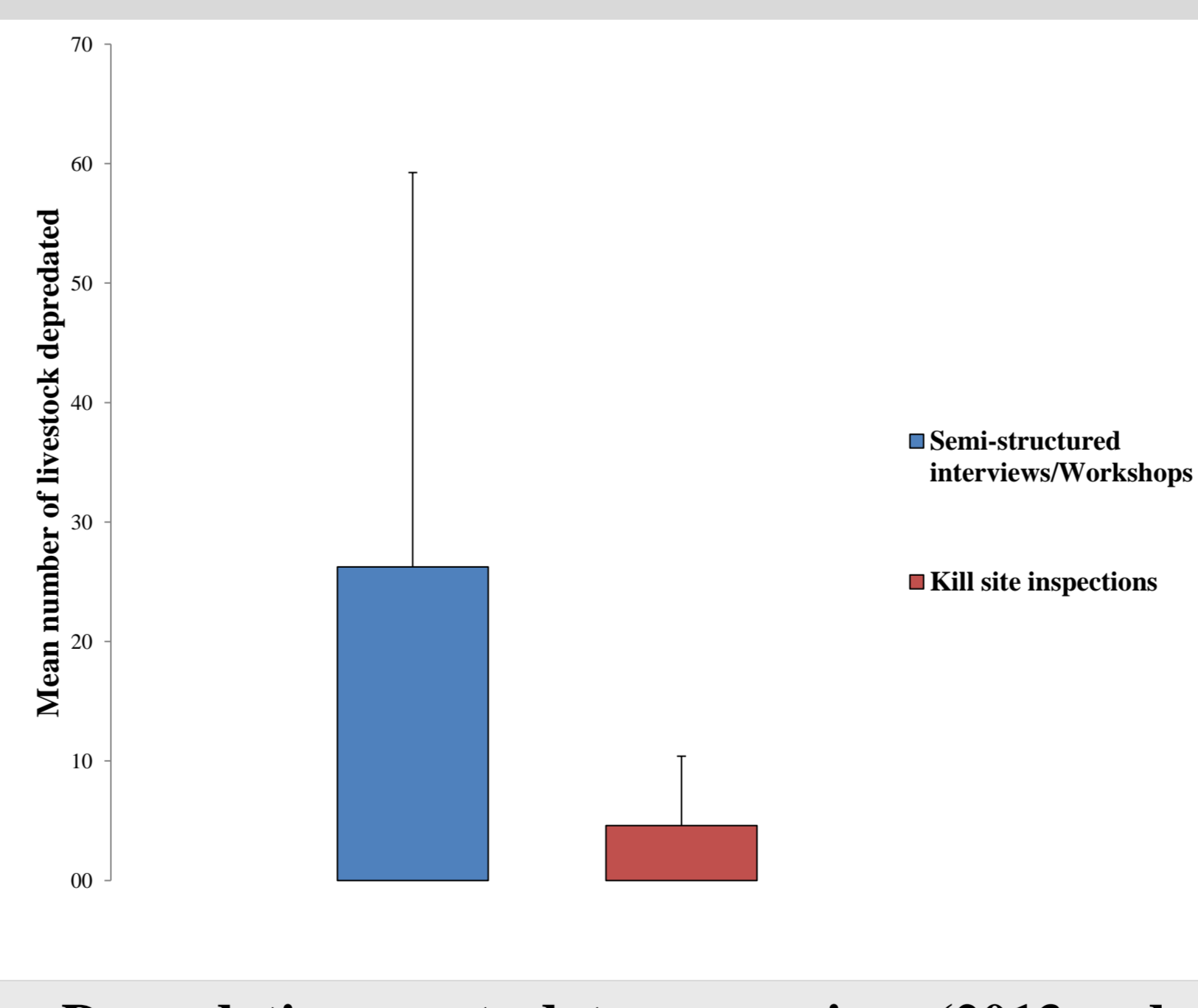
Daily puma depredation pattern (2013-2015).



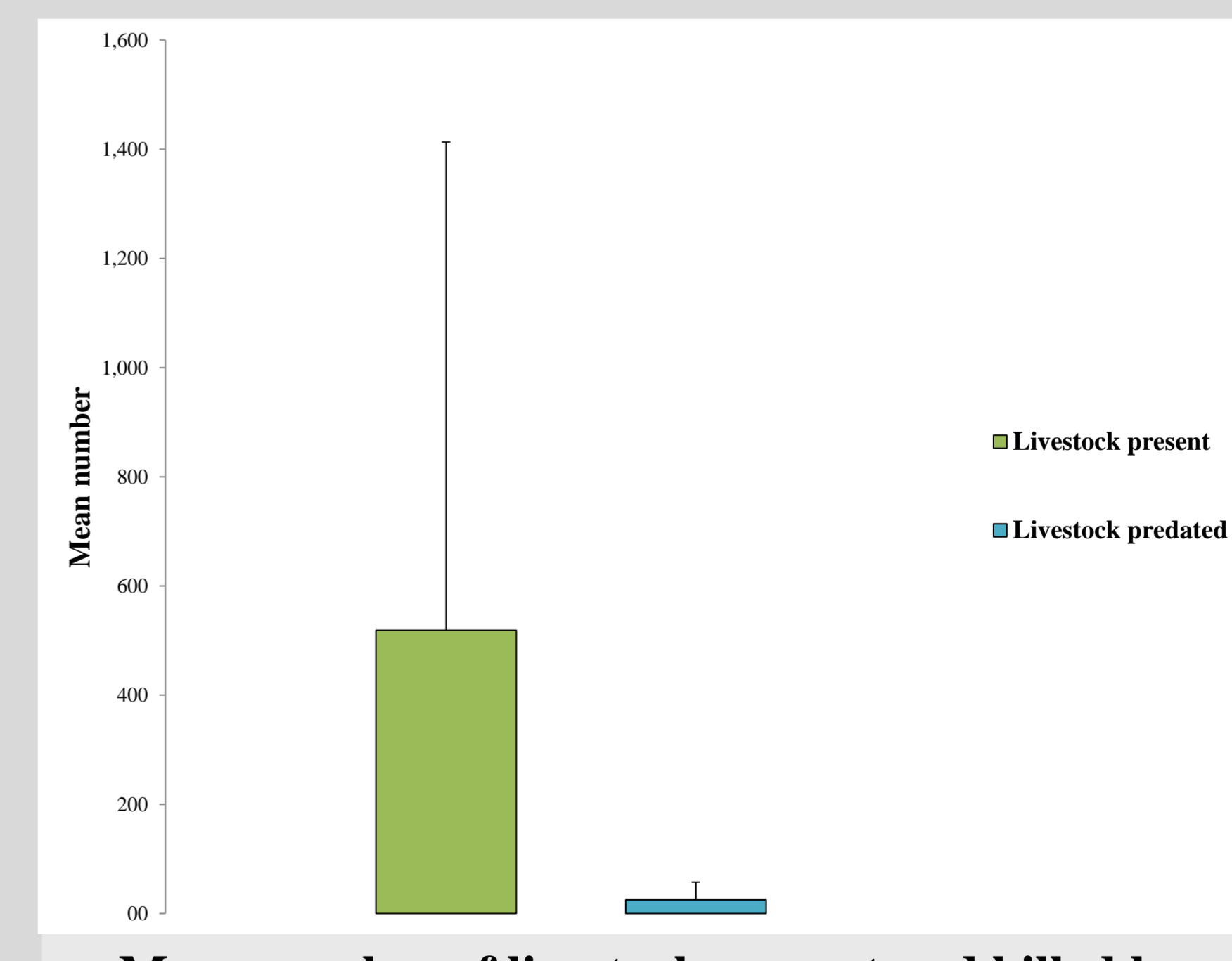
Distance of depredation events from anthropic areas (2013-2015).



Monthly puma depredation pattern (2013-2015).



Depredation events data comparison (2013 and 2015).



Mean number of livestock present and killed by puma (2013 and 2015).

## Conclusions

Our results clearly show that local people and pumas have a coexistence conflict in the study area, due to puma attacks on domestic herds. The characteristics of predation vary as a function of local condition, but economic losses can be important. The information produced in this work can be useful to design local, fine-tuned management plans which could mitigate conflicts and ensure the puma conservation in the study area. However, we believe that is necessary the participation of local authorities in order to develop and implement an effective conflict management plan.

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