COMMENTS TO AUTHOR

The study describes a medium- and large-sized mammal inventory in Augusto Ruschi Biological Reserve (ARBR), with special focus on species recorded in forest fragments, and propose management actions to increase the conservation value of this Protected Area. I believe you have a nice data set for the purpose of the study (i.e. an inventory), but you need to better explore the arguments provided in introduction and discussion, as well as provide some more details on study site.

My general recommendations to improve the manuscript are: (1) Construct a text that could be of interest to a broad audience, highlighting the importance of inventory studies in Introduction; (2) Avoid the focus on the area effect (fragment size) over species richness as you study do not have a proper sampling design to test such association; (3) Compare your data with similar studies in other reserves or fragments of similar size and vegetation type; (4) Provide a wider discussion on the negative impacts of domestic dog and road kill for medium- and large-sized mammal species.

Below I develop further comments on each section:

**Introduction**

Although the study focuses on ARBR, you should avoid a text that makes the tone of your paper too local in scope. For example, your paper would be improved if you start by describing the importance of inventories both to support management practices in Protected Areas and to provide data for ecological studies. Also, there is no need to mention that “*Human activities are the main reason for habitat loss and fragmentation of natural habitats* ***in the state****”*. This is true everywhere, so there is no need to mention São Paulo state here.

P1 - Please rewrite the sentence “*there are representatives of all orders of mammals found in the country (Bressan et al. 2009) that includes 38 endangered species (17%) and 58 species that are of limited scientific knowledge (Bressan et al. 2009)*”. What includes 38 endangered and 58 species that are of limited scientific knowledge species? 17% of what? What do you mean by species of limited scientific knowledge? Are these DD species following IUCN criteria?

Author’s note: The changes were made as suggested by reviewer.

**Material and Methods**

Study site - Describe the vegetation within the Reserve other than semideciduous forest (i.e. other than the forest fragments). Is this forest part of Atlantic forest or Cerrado biome? Are there areas of natural open vegetation (e.g. Campo Cerrado) in the reserve?

Author’s note: The changes were made as suggested by reviewer.

Data analysis - In Table 1 you present you sampling effort in “trap-nights”, what is appropriate specially because you have used two to six cameras (trap stations) per fragment, but your sampling effort is computed as “days” in rarefaction curves (Figures 3 and 4). I believe this is a problem, especially for results shown in Figure 4.

Author’s note: The changes were made as suggested by reviewer.

I do not see the point to evaluate species richness as a function of fragment size. You do not have a proper sampling design to develop an ecological study on the effect of fragment size on mammal richness; neither have you described a theoretical background on this topic in Introduction. Most likely, you are only interested on difference among fragments as this my guide conservation planning within the ARBR. If this is the case, you may simply evaluate differences among fragments.

**Results**

The information “*fragments were sampled from October 2012 to May 2013*” should be placed in Methods section.

Figure 2 can be eliminated if you place information (number of records) in Table 2.

16 species (in results) or 12 species (in abstract)??

Author’s note: The changes were made as suggested by reviewer.

**Discussion**

P1 - In “*and that require large areas*”, replace “and” by “or”.

In “*still able to maintain some species*”, add “threatened” before “species”.

P2 - In “*This suggests the importance of habitat remnants*”, what do you mean by “This”?

In “The ARBR reserve is relatively isolated”, remove “reserve”.

In “such a fragmented landscape”, which landscape are you referring to?

At the end of P2 you highlight the importance of small forest fragments (here I believe you are talking about the five fragments of ARBR) as stepping stones or habitat patches for a metapopulation. However, in the scenario of a highly deforested region I am not sure about which species may use these remnants as stepping stones (i.e. small fragments that help individuals to move between large fragments) or if there is any possibility of a metapopulation structure for forest specialist species. It would be interesting if you could give more details about the landscape context in Study site section. Are there other small forest remnants near ARBR? Are there large forest remnants that could be used by the same individuals recorded at ARBR?

Author’s note: The changes were made as suggested by reviewer.

P4 - Number of trap records certainly do not provide abundance data. However, it is used in the construction of relative abundance index (usually eliminating sequential photos), which might be used to contrast sampling sites, fragments, etc. You should consider rewriting this paragraph to avoid giving the wrong idea that record numbers are reflecting species abundance.

Author’s note: The changes were made as suggested by reviewer.

P5 - I strongly suggest you to remove the focus on fragment size. I would not expect a positive association between fragment size and species richness in your study not just because the fragments are too close to each other, but also because the variation in size is little.

Author’s note: The changes were made as suggested by reviewer.

P7 - You state that the ARBR “*hold a relatively high species richness comprising both specialist and threatened species*”, however you never provide evidence for this, as you did not compare your results to other reserves or fragments of similar size.

At the end of the text you suggest three management practices that should be adopted in the reserve: *“a) the exclusion of dogs from the reserve, b) actions to control car speed on the highway and to allow wildlife crossings c) and the establishment of forest corridors between fragments”*. Although I agree with you, I do not thing you have provided a proper discussion on these topics. There are numerous papers discussing exotic species (particularly domestic dogs) impact on wildlife, as well as the negative effect of road kill. Regarding forest corridors, I am not convinced about their need in the reserve, especially because you never mention which are the environments surrounding the forest fragments.

Author’s note: The changes were made as suggested by reviewer.