

Commentary Sheet

Examiner 1

- 1) **One of the main limitations of the study is that you were able to record habitat types and home ranges, but not the activity of the elephants in the particular patches. Therefore, while males and females might be using the same general habitat, they might be using it in different ways. You discuss differences in plant part use, which of course is important. But the bigger issue that your data misses is that males might be resting in a particular habitat, or even just passing through, while the females might be foraging (or vice-versa). Therefore they might be showing patterns predicted by the Jarman-Bell hypothesis that your data are not able to detect. This limitation should really be discussed.**

Page 42, Paragraph 2: I have added a paragraph on the above mentioned to the Discussion section of this report

- 2) **There needs to be some additional discussion of the difference in sociality with regards to home range size. While individual females may require smaller home ranges due to higher diet selectivity, they do not actually occur as solitary animals, and so may need to cover a greater area to have sufficient resources for the whole group. This would impact relative home range sizes as each of your females represents a rather large group and not just herself. Again, this really needs to be discussed.**

Page 37, Paragraph 1: I have added a paragraph on this in the Home Range Size section of the discussion.

Examiner 2

Introduction:

- 1) **Omit sub-title *Motivation and Rationale***

Page 1: Sub-titled has been omitted.

- 2) **Reference IUCN 2011**

I had incorrectly referenced this in the original text. The correct reference should be Blanc (2008). This reference already appears in the reference list and I have made the relevant changes throughout the text.

- 3) Fix the Shannon *et al.* (2006) reference throughout and in the reference list by splitting it into (a) and (b).**

This reference has been split into (a) and (b) throughout the report as well as in the reference list. While I was doing this, I also realised that I had left out a third Shannon *et al* 2006 reference, which I have now named (c).

Aims & Objectives

- 4) Hypothesis that is being tested needs to be stated.**

Page 7, Paragraph 1: I have stated which hypothesis was being tested.

Materials and Methods

- 5) Reference for rainfall data needed (Page 8)**

Page 8, Paragraph 1: Reference for rainfall data was provided. I then added this reference to the reference list (Page 49).

- 6) A clearer description of elephants collared is needed. Please state whether the male bulls with collars were individuals or parts of a group. Also state that female elephants collared were a matriarch in different groups. (Page 10)**

Page 10, Paragraph 2: I had already addressed this point in my original report. See below extract.

“Between 1998 and 2011, 34 elephants were collared by “STE - SA” in the APNR, comprising of six females and 28 males. The males were both immature and mature bulls that had left their maternal herds while the collared females were matriarchs of different clans. Because of the social nature of female African elephants, it was assumed that the GPS locations and movement patterns exhibited by the matriarch included the rest of her clan.”

- 7) Correct grammar on Page 12, Sentence 2.**

Page 12, Paragraph 1: The grammar has been corrected.

8) What LoCoH method was used in the study? (a) It is unclear which method was used and (b) why it was used.

(a) Page 12, Paragraph 2: The LoCoH method that was used in the study was stated in my original report. See extract below.

“These home ranges were calculated using the “K-LoCoH” method in R version 2.15.2 (<http://www.r-project.com>).”

(b) Page 12, Paragraph 2: I have provided a definition of the K-LoCoH method to aid in the understanding of the use of this method in this study.

9) Page 12, Paragraph 2. Explain in more detail how home ranges were determined. There is no indication in this section that the home ranges were calculated over a month using two data points per day.

Page 12, Paragraph 2: In this section, it was already stated in the original report that two data points per day were used to determine the home ranges. See extract below.

“Two GPS location time points (08:00 and 16:00) were used per day per elephant to calculate the home ranges of each elephant.”

Page 12, Paragraph 2: I have added that the home ranges were calculated monthly.

10) How was core and total home range calculated?

Page 12, Paragraph 2: I have provided a description of how the core and total home ranges were calculated.

11) Define isopleths.

Page 12, Paragraph 1: For the purpose of this study, the 95% and 50% isopleths were defined as/equated to the monthly total and core home ranges of the elephants respectively.

12) Show consistency with definition of ranges (.i.e. is it 50% and 95% isopleths or core and total home ranges?)

I have corrected the inconsistencies with these definitions throughout the report.

13) Both active and passive voice used in home range paragraph Page 16. Pick one.

Page 16, Paragraph 1, 2 & 3: The passive voice has been changed to the active voice throughout this section of the report.

Results

14) Explanation for male/female and female/male range overlap to be moved from paragraph 2 to paragraph 1 (Page 19).

Page 19, Paragraph 1: Definitions of home range overlaps have been moved from paragraph 2 to paragraph 1.

15) Table 6 – Title needs revision and more information added.

Page 27, Table 6: Title revised and more information was added.

Page vii, List of Tables: The above change resulted in a change needing to be made to the list of tables accordingly.

16) Tables 6, 7, 8, 9 needs to be in an appendix. Only relevant stats can be stated in the text.

Page 27; 29; 32-33; 34-35: I have left these tables as is as I prefer them in the results section as this makes them immediately comparable for the reader.

17) Find consistency with using 50 %/95% isopleths vs. core and total home range size.

I have corrected the inconsistencies throughout the entire report.

18) Use correct scientific format for tables.

The correct format was used for the tables in this report.

Discussion

19) First and second paragraphs a repeat of the introduction. Delete the first paragraph and re-write the second. The start of the discussion should be the main findings of the study, not the aim of the study.

Page 37, Paragraph 1: I have kept this paragraph in the text. I believe that beginning the discussion with the aim reminds the reader of the point to the study.

Page 37, Paragraph 2: I have reworded this paragraph to avoid repetition of the introduction.

20) How does the size of home ranges in this study compare to other studies?

Page 37, Paragraph 1 & 2; Page 38, Paragraph 1: This information was already provided in the original report.

21) Conclusion is too long and is a summary of the discussion. Only the last paragraph should be in the discussion.

Conclusion is not a summary of the discussion. It is a summary of the entire report and ties my findings and future suggestions together with the relevant literature.

References**22) Add IUCN 2011; Check list for consistencies; Correct Shannon *et al.* (2006).**

All of the references and inconsistencies have been checked and corrected throughout the report.

General**23) Correct spelling of “isopleths”. Several times throughout the report it is spelt incorrectly.**

Page 12, Paragraph 2: Spelling corrected

Page 25, Paragraph 2,: Spelling corrected

24) The discussion is written in active voice while the rest of the report is in passive voice. Pick one and stick to it throughout the report.

I have changed the tone of the report from passive to active voice throughout.