

Abstract

1. I would include a Methods subsection in the Abstract if you're going to include Background, Results, and Conclusion subsections.
2. Consider rewording this sentence:
"Plots used by this species were paired with random plots to study habitat selection of Mangshan pitviper in spring, summer, and autumn..." to "Plots used by the Mangshan pitviper were paired with random plots to study habitat selection in the spring, summer, and autumn..."
3. Include how many snakes were in the study.
4. Remove the word "some" from the last sentence and give an example of one of the target measures.

Introduction

Line 38: Remove the word "the" before "various resources."

Line 40: This sentence is unclear. Do you mean that it is important for conservation and management practitioners to better understand habitat selection?

Line 44: I'm not sure "classified" is the correct word. Perhaps "relegated?"

Line 46: Consider using "venomous" instead of "poisonous"

Line 54: Change "such as" to "for example"

Line 5: Add "The population of the" to the beginning of the sentence.

Line 67: I would add a citation for the IUCN Redlist account for this species to emphasize this point, as it explicitly agrees with you in the need for studies in habitat selection.

Line 72: This hypothesis is very vague. I would either make this much more explicit (assuming it was considered *a priori*) or remove it.

Methods

Line 89: Elaborate on what the transect surveys entailed. How were the transects delineated? How long were they? Were they based on time or distance? Straight or meandering? Etc.

Line 92: Include how many unique snakes were included in this analysis.

Line 99: Include an example of a plot that would be unusable by this species. Open water?

Line 99: The same plots were sampled in Spring, Summer, and Autumn, thus three times each? How much habitat change do you think there was between 2012 and 2016?

Line 105: Buchanan 2019 is missing from the literature cited.

Line 107: How are you defining gravel? What does "where the snakes take shelter" mean? Does that just mean "plot"? Also, what does the asterisk in the Table S1 refer to. Either way, I don't think this table is needed and it can be incorporated into the text.

Line 108: Citation needed for the definition and rating of the “slope aspect.” Why not use a measure of canopy cover for the exposure of the slope, or use the aspect itself, rather than interpreting the aspect as a proxy for exposure?

Line 116: What counts as nearest water? A stream or pond? Does an ephemeral source of water count? Is this distance to water consistent between 2012 and 2016?

Line 119: Define vertical projection.

Line 119: Keep a consistent format and explain each variable as you mention it, rather than lumping them together by number at first.

Line 122: What defined a shrub?

Line 124: What is the difference between a small plot and a small plot area?

Line 124: Define deciduous leaf cover. How does this differ from canopy cover?

Line 130: remove “in non-parametric test” and change “that do not” to “that are not”.

Line 131: Elaborate on your use of the Bonferroni correction.

Line 135: consider rephrasing “need to be screened” to “we screened the numerical values...”

Line 137: Include more information on your PCA (in supplements or the text). Scree plots? Biplots? Loading values? Tell us what information you used to make your decisions.

Line 139: What determined your cutoff for a significant correlation?

Line 140: eigenvectors or correlation coefficients?

Line 149: include a citation for using binomial logistic regression as a means of testing habitat selection e.g. Manly et al. 2002.

Line 158: Elaborate on your canonical discriminant analysis and why you did it.

Line 193: “proving” is too strong of a word for this result.

Line 194: Unclear. What does consistent mean in this context?

Line 203. Again, chose a different word other than “proves”

Line 204: This is the first mention of any stepwise procedure.

Discussion

Line 228: Reference other studies that found fallen logs or other coarse woody debris were important components of snake habitat, such as Vanek and Wasko 2017 (http://www.herpconbio.org/Volume_12/Issue_1/Vanek_Wasko_2017.pdf) and citations within.

Line 233: This sentence is unclear and should be re-worded.

Line 247: “predation” is an ambiguous term, consider rewording to emphasis attracting prey.

Line 253: citation needed for your tracking study or indicate unpublished observations.

Conclusions

The management recommendations described within should be elaborated upon in the discussion before being summarized in the conclusion.

Literature Cited

At least one missing citation (Buchanan et al. 2019), inconsistent case formatting.

Figures

Figure 1: It is hard to see the summer, and spring-summer coincidence plots.

Figure 2: This is a gorgeous series of photos. I wish I can go to China someday to see this species in the wild.

Figure 3: Explain the x and y axis in the caption.

Tables

Table 1: Include a space between the numbers and the +- sign for ease of reading.

Table 2: No need to include AIC or AICc in this table, just the delta AICc. I'm not sure what the $\exp(\Delta AICc)$ is or why it is included. Change the word "screened" to "ranked." Elaborate on the "correctly classified" column.

This is a cool paper and I love seeing studies of cryptic snakes. I hope you can make the recommended changes; I'd love to see this paper published.

All the best,
John Vanek