

Review of: "Burning for grassland pollination: recently burned patches promote plant flowering and insect pollinators"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

The manuscript 'Burning for grassland pollination: recently burned patches promote plant flowering and insect pollinators' is very well written and encompasses all the relevant points throughout all the manuscript. This study is very relevant in the present scenario where fires are increasing, by helping to enhance the literature and knowledge of fire disturbance over ecosystem services, like pollination, and better predict future consequences of this disturbance over ecosystems.

In order to help to improve the manuscript even more, I did some suggestions that follows:

INTRODUCTION

In "Pollinators are fundamental to maintaining global [...]" substitute "maintaining" to "maintain".

In "The use of prescribed fires has been indicated [...]" I suggest to insert "In this sense" before "the use of" in order to make the reading more fluid.

In "For instance, briefly after fire pollinator diversity [...]" insert comma after "fire".

In the paragraph where the authors mention one prediction (what they expect) and one hypothesis, I suggest to assume both as two hypotheses or as two predictions, as best suited to one of these terms (There are differences!).

MATERIAL AND METHODS

Study area

The information from "These grasslands are disturbance dependent (fire/grazing; Pillar & Quadros 1997), and disturbance suppression results in changes [...]" until the end of the paragraph is more an introductory content than a method one. Therefore, I strongly suggest reallocating this information to the paragraph where the authors mention the Southern Grasslands. This will turn the Introduction more informative regarding the context of the biome of study as well as the Material and method more objective.

Flowering plants

If I understood it right... each inflorescence was counted as one flower, right? If yes, do the authors don't think that an inflorescence can potentially attract more pollinators than a 'simple' flower?. Could this not affect the results?

For example, a plot that has 10 inflorescences and 5 flowers are not the same as a plot with 10 flowers and 5 inflorescences... I would expect that the first plot would attract more pollinators than the second one...

Statistical analyses

In the section on statistical analyses, I suggest writing "habitat structure", "flowering plants" and "pollinators" as sub subtopics in order to better understand that they are included in the topic of "statistical analyses".

RESULTS

Pollinators

The statement "Species composition of other insect groups did not vary significantly between categories" I would suggest reallocating to the beginning of the paragraph.

DISCUSSION

The mention of grazing in grasslands in "(e.g., not grazed; not burned for more than one year)" reinforces the need to, even briefly, write about the farming activity in the Southern Grasslands in the introduction.

Changes in habitat structure

At the end of "Freshly-burnt patches have enhanced bare soil, sunlight exposition, [...]" the authors cited many authors that found similar results, however, it is not necessary in this case, since they are referring to the results of their own study. I would suggest removing the citations or write that other studies also found similar results (thus justifying the citations).

I suggest to change the subtopic "Changes in flower abundance" to "Changes in flowering plants" in order to maintain the subtopics throughout the text.

Regarding flowering plant richness among time since-fire categories, what do the authors think could have led to this absence of difference? Did other studies found the same?

LEGENDS OF FIGURES AND TABLE

Please, include the local of the study in the legends. They must be more self-explanatory as possible.

Figure 1a. There is no need to enumerate the patches, the rows already give the necessary information.

Figure 3. Please include the information “3 x 180 m²” after “flowering counted in all parcels within plots (over 180 m²) and seasonal rounds (three rounds)” in the method section, this will help the reader to rapidly understand from where this information comes.