

In this study, the authors tested the effect of urban development on vertebrate biodiversity using a before-after-control-impact (BACI) design. They show extreme declines in species richness and abundance at developed sites, with some taxa more affected than others. Their study also highlights the decline of special-status species over time, even at control sites. I believe that the data presented in this study, although not always collected in a strictly standardized way, are very valuable, and the results are worth being published. However, I think that the manuscript is lengthy. This, combined with, sometimes, a lack of clear structure, makes the manuscript difficult to read and the results hard to understand. Moreover, it should be made clearer whether the analyses were run on the data collected only where the construction took place, or in the area of the development. In this matter, analysing biodiversity variation around the construction site would be a valuable addition to this study. My detailed comments are listed below.

1. Line 16: It is not clear from the summary or the abstract what means "cumulative effects monitoring".
2. Line 51: The term "wildlife" sometimes includes plants. Therefore, I suggest using here the term "animals".
3. Lines 52-53: The effects of urbanization on taxonomic diversity and richness is not specific to birds. It was also measured in arthropods (see for instance the meta-analysis of Fenoglio et al. 2020 in *Global Ecology & Biogeography*, Piano et al. 2020 in *Global Change Biology*, Chatelain et al. 2023 in *Frontiers in Ecology & Evolution*).
4. Lines 53-54: This statement implies that biodiversity always decreases with increasing urbanization. However, this is not the truth. Diversity, measured as taxonomic richness is often found to be higher at sites with intermediate levels of urbanization, at least concerning plants (see McKinney et al. 2008 in *Urban Ecosystems*).
5. Line 57: "Populations, species and habitats" are not biodiversity indicators. Simple and commonly used indicators are, for instance, species richness and Shannon's diversity index. Those indicators focus on genes, species or ecosystems.
6. Line 58: "Populations, species and habitats" are not biodiversity indicators. Simple and commonly used indicators are, for instance, species richness and Shannon's diversity index. Those indicators focus on genes, species or ecosystems.
7. Line 70: What are "behavioral morphologies"? Do the authors mean behavioral traits?
8. Lines 79-94: Only at the end of this paragraph, we understand that the main point is that the effects of habitat loss due to development have rarely been directly measured. For clarity, I think this sentence should come first and the rest of the paragraph can be drastically condensed.
9. Lines 95-104: Same here. I do not think that the reader needs detailed information of the sampling design used in previous studies. The main point is summed-up in the last sentence of this paragraph; it should come first and the rest of the paragraph can be condensed.

10. Lines 115-138: I think that these two paragraphs should be condensed. I understand that the main conclusion of these paragraphs is that wildlife surveys routinely performed in the context of the CEQA do not use a scientific approach/ meaningful sampling design. This can be resumed to a couple of sentences.
11. Line 176: "Nevertheless, wildlife utilized all of the study sites we surveyed." I do not understand this sentence.
12. Lines 242-243: I do not understand what this means. Please better explain what determined the duration of the survey.
13. Lines 306-308: This is very vague. How far away from where the development took place were the vertebrates observed? Even if this distance was not standardized, I think that the authors should give a range. Moreover, they should test and state that this distance did not differ between control and impact sites.
14. Lines 328-335: It is not clear to me whether the models are on data collected on site or within the wider project area. Please clarify. Moreover, to me, it would be more informative to run separate models testing the change of biodiversity on site and around the site (excluding the site where the construction happened). In this way, the authors could really test for the effect of development on the adjacent non-developed land.
15. Line 332: A GLM with Poisson distribution is usually used to investigate count data. Moreover, the tests on normality and homoscedasticity should be performed on the residues of the models and not on the data.
16. Lines 384-465: I think that the description of the results is way too long. If readers are interested in counts at specific site, they can check it from the data set. Moreover, all the percentage described in this paragraph and the following one can be calculated from Table 2. Therefore, I think that the description of the results in the text should be drastically reduced by summarizing the results (e.g. at developed sites, richness decreased by x% to y% depending on the taxon. On the contrary, richness globally remained stable at control sites)
17. Lines 494-499: I do not understand the reasoning behind this analysis. What was the question that the authors wanted to answer?
18. Line 541: Table 4 is extremely big. It should be moved to a Supplementary Material.
19. Line 581: The discussion is composed of many paragraphs. It would benefit from a re-organization, maybe using sub-headings.
20. Line 582: Because those variables were not controlled for in the statistical model, I suggest writing, "assuming that our sampling design sufficiently accounted for [...]".
21. Line 632: The manuscripts includes several pictures of vertebrates observed during the study. Although very nice, I do not think that the pictures bring much to the understanding of the study. They also take a lot of space. Maybe they could be combined within one image.
22. Lines 650-652: I am not sure I understand this sentence correctly. Do the authors mean that there were more rare species at control sites than at impact sites, even before the development plan started? Please clarify.

23. Line 726: The conclusion section focuses a lot on "cumulative impacts analysis". However, reading the manuscript did not enlighten me on the meaning of this term. It is also not clear from the introduction that this study assessed the cumulative impact of development projects. I think that the main strength of this study is the use of control sites to compare variations in biodiversity. I think that this could be better explained in the conclusion.
24. Lines 750-762: Because the effect of using native plants in landscaping was not investigated in this study, I think that this paragraph should be condensed within one opening sentence.