Dear Dr. Sánchez,

We are grateful for the opportunity of resubmitting our manuscript entitled "Are abandoned Eucalyptus plantations avifauna-friendly? A case study in the Valdivian rainforest", previously submitted to the RMB as MS 1372. Based on the positive feedback provided by both reviewers we prepared a new version, more focused on avian diversity. Below we detail how we addressed each comment / suggestion rose by the reviewers. Our replies are markers with "**R:**".

Sincerely yours,

Francisco E. Fontúrbel, PhD

REVIEWER 1

General comments
This is an interesting paper that compares bird communities between natural forests and plantations of an exotic tree species in Chile. The manuscript is well written and it was performed in a region where these types of studies are scarce. Nevertheless, I believe that survey effort might not be representative enough in both a spatial and temporal scales. This issue could severely limit the results and inferences made by the authors. Also, much attention is paid to the effect of local characteristics of survey sites on birds, while authors neglect the influence of landscape properties on avian communities, which might result important for the trends analyzed. Although major emphasis is paid to the shrub component of the vegetation, there is a lack of an adequate statistical analysis that relates its effects on bird community properties and supports the final conclusions of the authors. Please find my specific comments to the manuscript below. I hope they might result useful for enhancing the current version of the manuscript.
R: Thank you for your positive feedback on our manuscript. Following your suggestions and those from the second reviewer we prepared a new version, more focused on avian biology. We toned down the conclusions and stuck to the field data presented. We focused this study on how abandoned plantations can offer habitat for birds in a diversity hotspot with a large proportion of endemic species but highly threatened by the replacement of native forest by exotic tree plantations (currently representing about 2.6 million ha in southern Chile).

Specific comments
- I suggest the authors to consider modifying the title of the manuscript as it is not accurate. There is not an analytical support for stating that understory determines avian communities in the survey site. Moreover, I believe that plantations do not resemble avian communities from the native forest as species richness differs among them.
R: We modified the manuscript title, focusing it on avian diversity and leaving out the understory effect on bird communities.

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- Abundances are heavily biased as a result of differences on habitat and species detectability. Thus, I recommend the authors to exclude this comparison and consider the use of distance-sampling methods or occupancy models for comparing avian densities or species occupancy among sites, respectively.
R: To overcome this problem, we used the number of records instead of abundances, as we are unable to estimate detectability-corrected abundance figures in this case.

- The characterization and comparison of between-habitat structure is heavily biased towards the shrub component of the surveyed sites. I suggest the authors considering tree and herb parameters for their comparison, as their influence on bird communities is crucial.
R: We eliminated the habitat structure argument from the text, as we do not have enough data to support a robust analysis.

- I suggest the authors to consider the effect of landscape properties on avian communities. The size of stands, the proximity to original habitats, the proportion of forest cover in the matrix, and the distribution of the Eucalypt stands, among other landscape traits, might have an important effect on the trends analyzed by the authors.
R: In this particular case, both habitat types are neighboring and intertwined across the landscape as the forestry companies replaced the most accessible sites with Eucalyptus, leaving native stands in between. Fragmentation at the study site is negligible; therefore there are no non-forested matrices among the native and plantation habitats. We added this information into the text. At the study site, abandoned plantations represent 12,000 out of 50,500 ha (~24%). However, all plots were of equal size.

- I consider that survey effort is too localized and might not be spatially representative of the surveyed ecosystems (i.e., only two plots per surveyed condition). Please specify if eight distinct point-counts where surveyed per plot or if only one point-count was surveyed at eight different occasions.
R: There were eight different points within each plot. We clarified this in the Methods section.

- Please include a map that includes information about the localization of surveyed sites.
R: We included a map as requested (Figure 1).

- In order to strength the analytical and inferential power of their results, I suggest the authors considering a statistical analysis that might relate habitat traits with bird community properties. Regression analysis could be a good option for such an end.
R: As we removed the habitat structure argument in this new version, those analyses are no longer necessary.

- Please consider more references regarding bird communities and exotic Eucalypt stands.
R: We restructured the Introduction, adding more references related to bird communities in Eucalyptus plantations.

- Supplementary material: Please describe the analysis employed for this comparison in the methods section of the manuscript. Moreover, I suggest including a table that contains the crude data of those habitat variables measured in the field.
R: In this new version, we eliminated the habitat structure argument. Therefore, this supplementary material is no longer necessary.

REVIEWER 2

After carefully reading the manuscript "Understory matters: Avifauna at abandoned Eucalyptus plantations resembles the native forest diversity" I found it interesting; however, I believe that it needs important work before being considered for publication.
R: Thank you for your positive feedback. Below we answer each one of your comments in detail.

My greatest concern has to do with the methods, which lack of detail. As currently written it is difficult to evaluate this 'section'. Little information is provided regarding the natural habitat (not at all clear for international readers). Why was the sample size for each condition 16? Why are plant and bird survey 'plots' discrepant in size? Sites were sampled in several locations; how was the implied pseudoreplication considered in the analyses? Relative abundances have been critiqued for bird counts, as the observer's capability of detecting birds is not the same a distances increase, as well as changes in sample area related to closer or farther records. Why is this not considered or discussed?
R: Following the suggestions of both reviewers, we improved the Methods section to improve clarify and provide more information. We provided further details on the native habitat; a complete description of the study site is also available at Fontúrbel et al. (2015, Journal of Ecology 103: 1334-1343). Sample plots were all of the same size at both habitats. We monitored 8 points per plot (making 16 points per habitat type, for analysis purposes plots were nested within habitat types) because the censuses were made from December to March (corresponding to the austral summer) with two censuses conducted per month at each plot. Following the suggestion of the Reviewer # 1 we added a map of the study site, which may help to clarify the sampling area and design. As we were unable to account for detectability in our data, we refer to the number of individuals (i.e., occurrence) rather than abundances along the text.

I have other three important concerns regarding this contribution: (1) The theoretical framework is missing; I suggest clearly stating a research question and focusing it on a topic, which should be developed at the very beginning of the paper.

R: We have rewritten the entire Introduction following yours suggestions.

(2) The document is a bit messy. Although the format for Research Notes in this journal does not require subtitles or sections, the document should include an introduction, methods, results, and discussion, all following a guiding thread.
R: We structured the manuscript following that order. To clarify, Introduction goes from line 53 to line 73, Methods from line 74 to line 122, Results from line 123 to line 145, Discussion from line 146 to line 171, and Acknowledgements from line 172 to line 178.

(3) It is not clear which is the novelty or contribution of the study.
R: This case study presents, for the first time, a bird diversity assessment on abandoned plantations. Exotic plantations are assumed to be biological deserts, but our data shows that abandoned plantation with native understory are able to support a subset of the avifauna found at the native stands (19 out of 21 species). This is particularly relevant for the Valdivian rainforest, as this ecosystem is a highly threatened biodiversity hotspot, where exotic plantations (currently occupying ~200,000 ha of that ecosystem) are continuously expanding and replacing native habitats.

Minor comments:
- Is it typical to have that few species in native forests?
R: Yes, Chilean temperate rainforests are typically low in species number but high in endemism levels. This patters results from Chile's biogeographic context, as the country is a mainland island because of the geographic isolation caused by the Atacama Desert at the north, the glaciers at the south, the Andes mountain range at the east and the Pacific Ocean at the west. Such insular-like biota is typically depauperate in species but rich in endemic and monotypic species. There are 25 bird species habitually found at these forests (excluding raptor and scavenger species).

- In the discussion, the authors do not always stick to their results.
R: We restructured the Discussion following the recommendations of both reviewers.

- I am not sure how were the rarefaction curves calculated, but I would have expected to see smoothened lines throughout the graph, not irregular ones (as often happens with non-parametric estimators).
R: We estimated rarefaction curves using the standard method as described by Gotelli and Colwell (2001) and Colwell et al. (2004). If you examine closely the rarefaction curves, you will see that the average curves are always smooth; the irregular curves correspond to the 95% confidence intervals, which are variable as they are calculated upon bootstraps.

- Also, it is not clear why the rarefaction curve has final values of ~16 and ~19, while the table and text show 19 and 21 species, respectively.

R: There was a problem with the graphics software used, which resulted in altered y-axis values; we corrected this issue in this version.