Peerage of Science
Peer review, for the Peers, by the Peers

Review by Peer 307 on manuscript:

Manuscript title censored

Revision recommendation: Withdraw

ADDED INFO ABOUT PUBLICLY FEATURED REVIEW

Author of this peer review is Barbara Frei,

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PEQ = 4.9 / 5

Peer reviewed by 4 Peers.

Introduction

The reviewed manuscript (Anonymous authors 2013) describes a study reporting nest-site use on [redacted]. The authors examined the [redacted], hypothesizing that [redacted] favor [redacted]. This study also provided various descriptive statistics on nest tree species used in comparisons with tree species in the forests stands, previously existing [redacted] , nest tree width in comparison to the average of nest patch trees, and lastly distances from nest trees to various 'landmarks'.

Merits

score: 5.0 / 5

Although the study species is a very well researched in certain parts of its range, the manuscript focuses on an understudied geographic area. Therefore the basic natural history of [redacted] presented has important merit for the understanding and possible future conservation of this species in the area.

Critique

score: 5.0 / 5

This manuscript has a number of general and specific problems, ranging from basic grammar and readability, experimental design, statistical analysis, and flaws in the reporting of the findings. I do believe there is valuable data to be published from this research, but as it stands the manuscript is weak and unrefined. This is why I suggest a 'Withdraw' for the manuscript, as I believe the changes that need to be made to this manuscript are many and would be very difficult for the authors to achieve in the time frame allowed. I hope that the following critiques will aid the authors in the refining of the manuscript to allow for re-submission in the future.

A general problem of this manuscript includes improper use of terminology and over speculation of [redacted] habitat selection, given the methods used and data achieved. First, the term 'selection' and 'selective' are used throughout the manuscript. 'Habitat use' and 'habitat selection' have in the past been used interchangeably in the literature and are assumed by some to be the same. This is false. A [redacted] may 'use' a habitat when it has been shown to forage, roost, nest, and/or show territoriality within it. For example, the [redacted] in this study demonstrated habitat use at the nest tree scale by [redacted]. There is no evidence that the [redacted] used the nest patch or study area. At these scales the proper term would be habitat occupancy. Habitat selection suggests the understanding of complex behavioral and environmental process in which the use of the habitat is the end product of a complex selection process (Jones 2001). True habitat selection studies would be experimental where individuals are given two or more 'choices'.

Another general problem involves the experimental design of the research. If nests were found by following sounds of nestlings begging, this means that any nests that (a) failed prior to hatch, (b) were still in egg stage, and (c) had nestlings < 1 week old, would not have been found in the relatively short search window (max. 10 days). This severely biases the results and means only a subset of nests were included in the research.

A third general problem lies with the spatial scales and comparisons performed. The authors state that the study is 'spatially comprehensive' but data was collect at the nest tree and nest plot. These are both micro-scale measurements compared to meso-scale (territory) and macro-scale (landscape or range). To compare [redacted] occupancy one would need to compare occupied vs. unoccupied sites. The authors do so by comparing nest trees to the average of all trees in the nest plot (Line 177-181). It would be far better to compare the nest tree to a randomly selected tree (give certain size limitations) without the nest plot, not an average. In addition, from my understanding on Line 283, the comparisons of nest plot to study plot was an average of the dbh of all trees in a nest plot and then averaged again across nest plots? Generally taking the average of an average is not a good idea. It would be far better to compare occupied nest plots to unoccupied plots within the same study area (see Gutzwiller and Anderson 1987, Li and Martin 1991, Misenhelter and Rotenberry 2000, Newlon and Saab 2011)

A fourth general problem is that most statistics performed are descriptive or repeated univariate tests. Typically habitat use or occupancy research uses multivariate statistics, which are superior and far more informative (see Sedgwick and Knopf 1990, Saab et al. 2009, Crampton and Sedinger 2011).

A fifth general problem is that basis of the paper, the comparison to [redacted]. The information presented (i.e. the higher proportion of [redacted]) is helpful but not unique compared to other [redacted] studies, nor is it quantitative support. Few [redacted] species [redacted] in fresh wood exclusively.

A sixth general problem is that the discussion is weak and mostly comprised of a literature review of existing papers. By rethinking the experimental design and statistic analysis, I believe the authors would find more interesting findings to share and would rely less on the repetition of existing literature to fill the discussion section.

The last general problem is the readability and grammar of the manuscript. I completely understand the difficulties in writing in another language and applaud the authors for their grasp of the English language. Still, several sentences are confusing in structure or word use thus I would suggest judicious review by an expert in the English written language.

Discussion score: 4.8 / 5

The research on which this manuscript is based has intrinsically importance and once the experimental design and analysis are updated, some interesting findings may be gleaned from the data. Given the under-researched geographic area in which this work is based from, these findings will then undoubtedly have management and conservation merit.

References

Anonymous authors (2013) [redacted] (unpublished manuscript) - Peerage of Science

Crampton, L.H. & Sedinger, J.S. (2011) Nest-habitat selection by the Phainopepla: congruence across spatial scales but not habitat types. Condor 113: 209-222.

Gutzwiller K.J. & Anderson S.H. (1987) Multiscale associations between cavity-nesting birds and features of Wyoming streamside woodlands. Condor 89:534-548.

Jackson, J. & Jackson, B. (2004) Ecological relationships between fungi and woodpecker cavity sites. Condor 106: 37-49.

Jones, J. (2001) Habitat selection studies in avian ecology: a critical review. Auk 118: 557 - 562.

Li, P. & Martin,T.E. (1991) Nest-site selection and nesting success of cavity-nesting birds in high elevation forest drainages. Auk 108:405- 418.

Misenhelter, M. & Rotenberry, J.T. (2000) Choices and consequences of habitat occupancy and nest site selection in Sage Sparrows. Ecology 81: 2892-2901.

Newlon, K.R. & Saab,V.A. (2011) Nest-site selection and nest survival of Lewis's Woodpecker in aspen riparian woodlands. Condor 113: 183-193.

Saab, V., Russell, R.E. & Dudley, J.G. (2009) Nest-site selection by cavity-nesting birds in relation to postfire salvage logging. Forest Ecology and Management 257: 151-159.

Sedgwick, J.A. & Knopf, F.L. (1990) Habitat relationships and nest site characteristics of cavity-nesting birds in cottonwood floodplains. Journal of Wildlife Management 54: 112-124.

Additional comments for authors

- line 55-60 a rather long run on sentence which I am unsure of what it means: "but incomparability and lack of comprehensiveness in nest site selection was often stressed out…"

- why 12.5 m for the nest plot? Was this the standard size used and thus comparable to other studies?

- Usually one doesn't mark nest trees so that possible predators don't create a search pattern.

- Slightly arbitrary qualification of tree vitality - other more specific forestry terms or hardness tests?

- Line 142-144: Does dry = dead?

- Line 145-146: describe feeding signs? Of what?

- Line 165: form = from . Which forest management plans? More information on the specific area surveyed, year, methods, ect.

- Line 166: Basal area for each tree species per hectare?

- Line 171: What were the differences? 'Floristic structure' is a bit of an odd term

- Line 182: Explain the Rayleigh uniformity test and why it was chosen instead of a comparison to computer generated ordinal data?

- Line 190-191: Where did the study plot data come from? What this from the 'Forest Management plan'?

- General stats: Did you run correlation test for the NT or NP variables? You should first ascertain that the variables were uncorrelated with each other prior to further analysis.

Line 229: Average entrance height…

Line 260 -261: Species of trees?

Line 282 - 283: Again if you are comparing average of averages I would not feel certain about this

Line 285-286: Still not sure what feeding marks entail and why they are being measured…

Line 300: Unsure of what this sentence means…

Line 351-316: Did you measure or test for [redacted]? This appears to be one of the main points of the study but the first time it is mentioned is in the discussion

Lines 316-325 are basically a literature review. This is the first paragraph of the discussion - a place in the paper where you should discuss your most important and critical findings instead of summarizing existing literature

Lines 328 - 330: This statement suggests that either (1) [redacted], or (2) [redacted]. I am not convinced either is true.

Line 325 - 327: Unsure what this statement means.

Lines 330 - 340: Again lacking a discussion of new findings

Line 341-346: Messy and confusing dialogue.

Line 347 - 350: Do not quote entire sentences from existing literature

Line 375-376: Will basal measurements fully support the statement of tree dominance? There could be less trees of the species but if they are larger they will contribute more to the basal count. Typically dominance is a measure of individual numbers

Line 339 - 408: The average of all trees including very small ones should not even be included in the paper - remove statistic and discussion. Actually entire paragraph can be removed as the adjusted average were NS

Line 411 - 413: I don't see any support for this statement