

Peer Review: Use of multi-modelling methods to inform conservation and reintroductions of pine marten *Martes martes* in Britain

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Collaborators: Johnny Birks, Elizabeth Croose, Jonathan Gilbert, & Tim Hofmeester

Credibility Score

100%

Accepted by 4 of 4 reviewers

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Conflicts of Interest

The authors declare no conflicts of interest.

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Reviewer Summaries

Johnny Birks

Initial Submission

Do you have any conflicts of interest that could bias your ability to provide an independent review?

No

What did the authors do a good job with?

The authors have set out clearly the need for a more strategic approach to achieve pine marten recovery in Britain, acknowledging the significant constraints operating and, especially, the need to avoid over-harvesting of the genetically-compromised donor population in Scotland. They have explained the contributions that modelling can make to this improved approach and they have described the application process pretty well.

How do you think this research will contribute to the field?

From my own (albeit limited) involvement in the field of pine marten conservation in Britain I know that this research is already influencing recovery planning in good ways. Notably, it has helped with the targeting and prioritisation of regions for translocations and also zones for population expansion through natural spread. I am confident that the new rigour and strategic approach arising from this research will continue to influence positively the pattern of pine marten recovery in Britain.

Regarding the study design and methods, what do the authors need to fix or improve upon to be fit for publication?

There is some need for clarification of the authors' methods as per specific comments posted by reviewers in the MS. Notably, the potential for sources of habitat bias inherent in the narrow records selection process should be considered and explained to reassure the reader that the resultant Habitat Suitability Model is not skewed significantly (one hopes).

Regarding the analysis and interpretation of their findings, what do the authors need to fix or improve upon to be fit for publication?

I have no serious concerns with the analysis and interpretation of the authors' findings; they have done a pretty good job overall. However, especially for non-British readers, there are ways in which the clarity of the text could be improved to make it easier to understand (as per specific suggestions in the MS by reviewers). One example is the poor quality of the image in Figure 5.

Is there anything else you think the authors need to fix in their article to be fit for publication?

I congratulate the authors on a really powerful contribution to conservation science (subject to my earlier comments). Through its promotion of a more rigorous and strategic approach, this paper is a valuable contribution to the recovery of pine martens in Britain; moreover, it deserves to stand as an example of best practice in species recovery planning for other species. I suggest the authors could 'blow their own trumpet' a bit louder by emphasising the strategic value of this approach and its potential application more widely.

Do you have any concerns about the ethics of this research?

No concerns. This research makes a valuable ethical contribution by offering a mechanism to protect donor populations from over-harvesting.



Do you believe the article, in its current form, is fit for publication?

Revise and resubmit

Revised Submission

Do you have any conflicts of interest that could bias your ability to provide an independent review?

No

How well did the authors respond to your comments?

4/5

What - if any - feedback do you feel the authors did not adequately respond to?

My main comments were delivered very late in the process, so the authors did not see them at the appropriate time - I am sorry for messing up!

What else do the authors need to fix for this article to be ready for publication?

Nothing from my perspective

If the authors make these changes, will the article be ready for publication?

Yes

Should this article be published?

Yes - accept with the revisions I mentioned

Do you need to see the article again before it gets published?

No - I don't need to see it again

Would you like to be listed as a Collaborator on the final publication?

Yes, please list me as a Collaborator

Lizzie Croose

Initial Submission

Do you have any conflicts of interest that could bias your ability to provide an independent review?

No

What did the authors do a good job with?

The paper is well written, well structured with clear implications for species conservation and future reintroductions of pine martens.

How do you think this research will contribute to the field?

Interest in pine marten reintroductions is increasing in Britain, which will create increased demand on donor populations in Scotland and potentially elsewhere in Britain. The framework developed in the paper can be used to prioritise and target areas for pine marten reintroduction for maximum conservation gain, and can be replicated for other species in the future.

Regarding the study design and methods, what do the authors need to fix or improve upon to be fit for publication?

I don't have any suggestions for improvements to the study design or methods.

Regarding the analysis and interpretation of their findings, what do the authors need to fix or improve upon to be fit for publication?

I don't have any suggestions for improvements to the data analysis or interpretation.

Is there anything else you think the authors need to fix in their article to be fit for publication?



No

Do you have any concerns about the ethics of this research?

No; as the methods used existing data and no live animals were used in the research, there are no ethical concerns.

Do you believe the article, in its current form, is fit for publication?

Revise & Resubmit

Revised Submission

Do you have any conflicts of interest that could bias your ability to provide an independent review?

No

How well did the authors respond to your comments?

5/5

What - if any - feedback do you feel the authors did not adequately respond to?

N/A

What else do the authors need to fix for this article to be ready for publication?

Nothing from me

If the authors make these changes, will the article be ready for publication?

Yes

Should this article be published?

Yes - accept with the revisions I mentioned

Do you need to see the article again before it gets published?

No - I don't need to see it again

Would you like to be listed as a Collaborator on the final publication?

Yes, please list me as a Collaborator

Jonathan Gilbert

Initial Submission

Do you have any conflicts of interest that could bias your ability to provide an independent review?

No

What did the authors do a good job with?

The paper was clear as to objectives and approach. The writing was succinct and the ms reads well.

How do you think this research will contribute to the field?

This paper provides another way to evaluate places for reintroduction efforts. The details may be specific to Britain, but the approach is reproducible in other locations.

Regarding the study design and methods, what do the authors need to fix or improve upon to be fit for publication?

Some consideration should be given to developing HSM using Netherlands data.

Some consideration should be given to developing resistance surface modeling by placing end nodes at the center of each proposed destination region.

Regarding the analysis and interpretation of their findings, what do the authors need to fix or improve upon to be fit for publication?



I would like to see each of these regions run through the flow diagram at figure 1 to evaluate whether or not the region is recommended for reintroduction.

Is there anything else you think the authors need to fix in their article to be fit for publication?

The maps should all be in the same projection.

Do you have any concerns about the ethics of this research?

No

Do you believe the article, in its current form, is fit for publication?

Accept

Revised Submission

Do you have any conflicts of interest that could bias your ability to provide an independent review?

No

How well did the authors respond to your comments?

4/5

What - if any - feedback do you feel the authors did not adequately respond to?

None

What else do the authors need to fix for this article to be ready for publication?

This article is ready

If the authors make these changes, will the article be ready for publication?

Yes

Should this article be published?

Yes - accept with the revisions I mentioned

Do you need to see the article again before it gets published?

No - I don't need to see it again

Would you like to be listed as a Collaborator on the final publication?

Yes, please list me as a Collaborator

Tim Hofmeester

Initial Submission

Do you have any conflicts of interest that could bias your ability to provide an independent review?

No

What did the authors do a good job with?

The modelling framework that they present and apply is well developed but to my knowledge relatively underused. This manuscript shows a great example of how it can be used.

How do you think this research will contribute to the field?

It introduces a decision tree and methodology to plan conservation reintroductions, which is highly needed for evidence-based conservation, especially in the context of the UK.

Regarding the study design and methods, what do the authors need to fix or improve upon to be fit for publication?

There were some points related to reproducibility that would be good to address.



Regarding the analysis and interpretation of their findings, what do the authors need to fix or improve upon to be fit for publication?

There are some interpretation points, especially related to the methods and how well they worked that would be good to address.

Is there anything else you think the authors need to fix in their article to be fit for publication?

See my comments in the document.

Do you have any concerns about the ethics of this research?

No

Do you believe the article, in its current form, is fit for publication?

Revise & Resubmit

Revised Submission

Do you have any conflicts of interest that could bias your ability to provide an independent review?

No

How well did the authors respond to your comments?

4/5

What - if any - feedback do you feel the authors did not adequately respond to?

There were some choices to not include things the reviewers asked for where I would have chosen differently, but I do think the authors made a good argument stating that the manuscript should not become too long as they were details that might be interesting but perhaps not strictly necessary.

What else do the authors need to fix for this article to be ready for publication?

Unfortunately, I was not able to reach the collaborative document this time around, so I do not know what the other reviewers added for comments. As far as I could tell, I there were no new issues that arrived after I saw the comments from the authors, so I do not have new suggestions for changes personally.

If the authors make these changes, will the article be ready for publication?

Yes

Should this article be published?

Yes - accept with the revisions I mentioned

Do you need to see the article again before it gets published?

No - I don't need to see it again

Would you like to be listed as a Collaborator on the final publication?

Yes, please list me as a Collaborator