Moth wings as sound absorber metasurface

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Article citation details
Proc. R. Soc. A 478: 20220046.
http://dx.doi.org/10.1098/rspa.2022.0046

Review timeline
Original submission: 26 January 2022
Revised submission: 10 May 2022
Final acceptance: 17 May 2022

Note: Reports are unedited and appear as submitted by the referee. The review history appears in chronological order.

Review History
RSPA-2022-0046.R0 (Original submission)

Review form: Referee 1

Is the manuscript an original and important contribution to its field?
Excellent

Is the paper of sufficient general interest?
Good

Is the overall quality of the paper suitable?
Good

Can the paper be shortened without overall detriment to the main message?
Yes

Do you think some of the material would be more appropriate as an electronic appendix?
Yes

Do you have any ethical concerns with this paper?
No
Recommendation?
Accept with minor revision (please list in comments)

Comments to the Author(s)
The reach of metamaterials has for some time been spreading into acoustics with practical consequences for sound control in many diverse environments. The Holderied team in Bristol have been producing a series of impressive papers on the acoustic properties of moth wings and in this paper they give a highly detailed scholarly analysis of a moth wing. I found the paper interesting if a little dense in its presentation although given the mass of detail that may be unavoidable. The figures could be made a bit clearer.

Review form: Referee 2

Is the manuscript an original and important contribution to its field?
Excellent

Is the paper of sufficient general interest?
Excellent

Is the overall quality of the paper suitable?
Excellent

Can the paper be shortened without overall detriment to the main message?
Yes

Do you think some of the material would be more appropriate as an electronic appendix?
No

Do you have any ethical concerns with this paper?
No

Recommendation?
Accept with minor revision (please list in comments)

Comments to the Author(s)
Please, find my comments into the attached file.

Decision letter (RSPA-2022-0046.R0)

03-May-2022

Dear Dr Holderied,

On behalf of the Editor, I am pleased to inform you that your Manuscript RSPA-2022-0046 entitled "Moth wings as sound absorber metasurface" has been accepted for publication subject to minor revisions in Proceedings A. Please find the referees' comments below.
The reviewer(s) have recommended publication, but also suggest some minor revisions to your manuscript. Therefore, I invite you to respond to the reviewer(s)’ comments and revise your manuscript. Please note that we have a strict upper limit of 28 pages for each paper. Please endeavour to incorporate any revisions while keeping the paper within journal limits. Please note that page charges are made on all papers longer than 20 pages. If you cannot pay these charges you must reduce your paper to 20 pages before submitting your revision. Your paper has been ESTIMATED to be 16 pages. We cannot proceed with typesetting your paper without your agreement to meet page charges in full should the paper exceed 20 pages when typeset. If you have any questions, please do get in touch.

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Once again, thank you for submitting your manuscript to Proceedings A and I look forward to receiving your revision. If you have any questions at all, please do not hesitate to get in touch.

Best wishes
Raminder Shergill
proceedingsa@royalsociety.org
Proceedings A

Reviewer(s)' Comments to Author:
Referee: 1
Comments to the Author(s)
The reach of metamaterials has for some time been spreading into acoustics with practical consequences for sound control in many diverse environments. The Holderied team in Bristol
have been producing a series of impressive papers on the acoustic properties of moth wings and in this paper they give a highly detailed scholarly analysis of a moth wing. I found the paper interesting if a little dense in its presentation although given the mass of detail that may be unavoidable. The figures could be made a bit clearer.

Referee: 2
Comments to the Author(s)
Please, find my comments into the attached file.

Decision letter (RSPA-2022-0046.R1)

17-May-2022

Dear Dr Holderied

I am pleased to inform you that your manuscript entitled "Moth wings as sound absorber metasurface" has been accepted in its final form for publication in Proceedings A.

Our Production Office will be in contact with you in due course. You can expect to receive a proof of your article soon. Please contact the office to let us know if you are likely to be away from e-mail in the near future. If you do not notify us and comments are not received within 5 days of sending the proof, we may publish the paper as it stands.

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