

Sperm velocity in a promiscuous bird across experimental media of different viscosities

Tim Schmoll, Geir Rudolfson, Holger Schielzeth and Oddmund Kleven

Article citation details

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Review timeline

Original submission: 5 May 2020
Revised submission: 19 June 2020
Final acceptance: 22 June 2020

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

Review History

RSPB-2020-1031.R0 (Original submission)

Review form: Reviewer 1

Recommendation

Accept as is

Scientific importance: Is the manuscript an original and important contribution to its field?

Good

General interest: Is the paper of sufficient general interest?

Good

Quality of the paper: Is the overall quality of the paper suitable?

Good

Is the length of the paper justified?

Yes

Should the paper be seen by a specialist statistical reviewer?

Yes

Do you have any concerns about statistical analyses in this paper? If so, please specify them explicitly in your report.

No

It is a condition of publication that authors make their supporting data, code and materials available - either as supplementary material or hosted in an external repository. Please rate, if applicable, the supporting data on the following criteria.

Is it accessible?

Yes

Is it clear?

Yes

Is it adequate?

Yes

Do you have any ethical concerns with this paper?

No

Comments to the Author

The authors have responded to my comments to their first version of the manuscript. They have explained more about the statistics, and they have added concern about the use of artificial ovarian fluid in bird studies.

Viscosity of the ovarian fluid might turn out to be an important part of ovarian fluid and sperm competition and not much has been published about this yet. Thus I believe this is an important contribution.

Review form: Reviewer 2

Recommendation

Accept with minor revision (please list in comments)

Scientific importance: Is the manuscript an original and important contribution to its field?

Good

General interest: Is the paper of sufficient general interest?

Acceptable

Quality of the paper: Is the overall quality of the paper suitable?

Good

Is the length of the paper justified?

Yes

Should the paper be seen by a specialist statistical reviewer?

No

Do you have any concerns about statistical analyses in this paper? If so, please specify them explicitly in your report.

No

It is a condition of publication that authors make their supporting data, code and materials available - either as supplementary material or hosted in an external repository. Please rate, if applicable, the supporting data on the following criteria.

Is it accessible?

No

Is it clear?

N/A

Is it adequate?

N/A

Do you have any ethical concerns with this paper?

No

Comments to the Author

The authors have greatly improved their manuscript and carefully addressed all main issues. I have no further reservations but just a few suggestions for minor edits (by line).

22 I suggest moving “however” to before or after “Few studies” for better English

25 “by” is missing before “up to about 50%” as otherwise it would imply an increase to 50%

32 Don’t you mean “slowed down by a similar degree”? “to a similar degree” would imply the same end point, not the same rate of decline.

79 I’m not sure that sperm have a “preferred time” and then wait to leave the SST until that time arrives. It seems to me that they simply leave more or less at random, but those sperm that happen to leave within a certain time-frame relative to ovulation simply have higher fertilization success. Maybe what you mean, then, is “to leave the tubules at the optimal time” or something along those lines?

95 Don’t you mean “in vitro”? I don’t see why artificial viscous medium would be necessary for in vivo assessment where sperm would be in the female reproductive tract (to whatever extent sperm behavior could be assessed there). Or do you mean highly viscous medium should be used to better simulate the conditions experienced in vivo? Please clarify.

126-127 You probably mean “a trait that itself can be the target of natural or sexual selection”

133 Delete “a” before “zero”

159-160 within 160 two minutes of sampling

199 Remove second hyphen in “low-viscosity-environment”

338 I leave this to the authors’ discretion, but I personally find it odd that they now suddenly add two further decimal points to their p-value compared to previous values, possibly just to show that the value is below 0.05 if you look far back enough ($P=0.0497$). In my opinion, this seems to put too much emphasis on the arbitrary significance threshold of $\alpha = 0.05$ and does not really change much about the strength or biological significance. Just for reflection without judgement: Would they also have put so much emphasis on the deviation from 0.05 if the p-value had been 0.0503? And would that result have changed the conclusions relative to the reported $P=0.0497$?

465 A correlation is typically considered strong or weak, not large or small.

Decision letter (RSPB-2020-1031.R0)

12-Jun-2020

Dear Dr Schmoll

I am pleased to inform you that your Review manuscript RSPB-2020-1031 entitled "Sperm velocity in a promiscuous bird across experimental media of different viscosities" has been accepted for publication in Proceedings B.

The referee(s) do not recommend any further changes. Therefore, please proof-read your manuscript carefully and upload your final files for publication. Because the schedule for publication is very tight, it is a condition of publication that you submit the revised version of your manuscript within 7 days. If you do not think you will be able to meet this date please let me know immediately.

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2) A separate electronic file of each figure (tiff, EPS or print-quality PDF preferred). The format should be produced directly from original creation package, or original software format. Please note that PowerPoint files are not accepted.

3) Electronic supplementary material: this should be contained in a separate file from the main text and the file name should contain the author's name and journal name, e.g. `authorname_procb_ESM_figures.pdf`

All supplementary materials accompanying an accepted article will be treated as in their final form. They will be published alongside the paper on the journal website and posted on the online figshare repository. Files on figshare will be made available approximately one week before the accompanying article so that the supplementary material can be attributed a unique DOI. Please see: <https://royalsociety.org/journals/authors/author-guidelines/>

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If you have already submitted your data to dryad you can make any necessary revisions to your dataset by following the above link.

5) For more information on our Licence to Publish, Open Access, Cover images and Media summaries, please visit <https://royalsociety.org/journals/authors/author-guidelines/>.

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

Sincerely,

Professor Gary Carvalho
mailto:proceedingsb@royalsociety.org

Associate Editor Board Member: 1

Comments to Author:

Both reviewers are satisfied with the changes that have been made, as am I. Reviewer 2 has some suggestions for minor edits.

Reviewer(s)' Comments to Author:

Referee: 1

Comments to the Author(s)

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Referee: 2

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Best wishes,
The Proceedings B Team
mailto:proceedingsb@royalsociety.org

Decision letter (RSPB-2020-1031.R1)

22-Jun-2020

Dear Dr Schmoll

I am pleased to inform you that your manuscript entitled "Sperm velocity in a promiscuous bird across experimental media of different viscosities" has been accepted for publication in Proceedings B.

You can expect to receive a proof of your article from our Production office in due course, please check your spam filter if you do not receive it. PLEASE NOTE: you will be given the exact page length of your paper which may be different from the estimation from Editorial and you may be asked to reduce your paper if it goes over the 10 page limit.

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Thank you for your fine contribution. On behalf of the Editors of the Proceedings B, we look forward to your continued contributions to the Journal.

Sincerely,

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mailto: proceedingsb@royalsociety.org