

Dear Dr Blide

We really thank you for your decision on our manuscript "Sperm production and allocation in response to risk of sperm competition in the black soldier fly *Hermetia illucens*".

As you suggested, we corrected typos and edited the language to clarify the text. We have also reduced the length of the summary to less than 250 words.

You can find a list of the changes below, as well as a tracked-changes version of our manuscript attached to this submission.

Sincerely,

Frédéric Manas, Carole Labrousse, Christophe Bressac

In the entire manuscript and in the script: "risks" → "risk"

L44: ", as well as the" → "and"

L59: "Moreover" → "Moreover,"

L74: "[...] competition.\_Despite" → "[...] competition.\_Despite"

L75: "Giunti et al., (2018) reported" → "Giunti et al. (2018) reported"

L80: "Here we experimentally" → "Here, we experimentally"

L82 & 83: "(mean risks of sperm competition) in\_males' seminal vesicles → (mean risks of sperm competition) in\_males' seminal vesicles

L109: "(Personal observations)" → "(personal observations)"

L110: "The first step for" → "The first step of"

L112 & 113: " Males from the singled treatments and from the grouped treatment were differentiated by marking a different coloured spot on their thorax." → "Males from the singled treatment and from the grouped treatment were distinguished by the application of distinct colored spots on their thorax."

L122 & 123: " Time was recorted once copulations were completed to record duration" → "Time was recorded once copulations were completed"

L123, 216, 217, 220, 243: "in presence of" → " in the presence of"

L125: "within which" → "where"

L137: "in PBS saline buffer" → " in phosphate-buffered saline (PBS)"

L139: "on a slide an gently uncoiled" → "on a slide in PBS and gently"

L141: "the head width" → "their head width"

L146: " as in Munsch-Masset et al., (2023)" → " as in Munsch-Masset et al. (2023)"

L153 & 154: "to measure the head width using ImageJ like the males from the mean risks experiment these measures and were taken into account" → "to measure the head width using ImageJ like the males from the mean risks experiment. These measures were taken into account "

L158: "microscope(Olympus CX40, Japan)" → "microscope (Olympus CX40, Japan)"

L161: "size of seminal vesicles" → "length of seminal vesicles"

L167-169: "As heteroscedasticity in the models was detected, a logarithmic transformation was applied on the response variables" → "We applied a logarithmic transformation on the response variables as they were counting data (spermatozoa counts in the seminal vesicles and in the spermathecae)."

L195: " groups had a mean 43 % increase " → "groups had a mean of 43 % increase"

L198: "risk" was forgotten

L242: "BSF Males had more" → "BSF males had more"

L243: "of conspecific" → "of conspecifics"

L244: "the males of the BSF" → "males of the BSF"

L246: "to the immediate risks" → "to immediate risk"

L252: " It seems not to be the case in the BSF, where it has already been shown that male size " → "It seems not to be the case in the BSF, in which it has already been demonstrated that male size"

L266: " further, a different experimental set up would have " → "further, a different experiment would have"

L282: " aedaegus " → "adeagus"

L293: "(Our unpublished data)" → "(our unpublished data)

L297: "these interactuis ended in a mating" → " these interactions ended in matings"

L311-313: "(Our unpublished data). When it comes to controlling reproduction for example to make genetic selection, the understanding of sexual selection processes is a key factor that need to be integrated in the 317 rearings – e.g. by determining if different contexts of competition are good for productivity." → "(our unpublished data). When it comes to controlling reproduction, for example to make genetic selection, understanding sexual selection processes is a key factor that needs to be integrated in the rearing methods – e.g., by determining whether different contexts of competition are good for productivity."