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 single treatments and from the grouped treatment were differentiated by marking a different color spot on their thorax." → "Males from the single treatment and from the grouped treatment were distinguished by the application of distinct colored spots on their thorax."
L122 & 123: "Time was recorded 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)"
to measure the head width using ImageJ like the males from the mean risks experiment. These measures were taken into account.

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

"size of seminal vesicles" → "length of seminal vesicles"

"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)."

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

"risk" was forgotten

"BSF Males had more" → "BSF males had more"

"of conspecific" → "of conspecifics"

"the males of the BSF" → "males of the BSF"

"to the immediate risks" → "to immediate risk"

"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"

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

"aedaegus " → "adeagus"

"(Our unpublished data)" → "(our unpublished data)

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

"(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."