

Review PCI #199

Thank you for providing a revised version of your manuscript. The experimental design is now clear, and so are other methodological details that were missing in the previous version. I have a few remaining concerns.

1) The behavioural characterization of the hens. Did you try to use this measure to understand the relation between hen behaviour and chick performance? I can't find this information in the text. If you did indeed perform any analysis of how hen behaviour affected chicks, this needs to be reported.

Alternatively, if analysis was limited to the effect of hen presence independently of how she behaved, you need to reconsider how to refer to that analysis. I find it a little confusing and potentially misleading that you refer to the behavioural characterization when you describe the effect of hen presence if this measure was not used. I would remove "categorised according to their behaviour" from lines 32-33 and line 55, or alternatively, add detail on how hen behaviour affected the chicks. The statement on lines 327-328 that "The deterioration of chick quality with hens was due to the hen aggressiveness" is also problematic if there was no analysis of hen behaviour effect. You could reword it to "The deterioration of chick quality with hens was probably related to hen aggressiveness"

2) How did you correct for multiple comparisons in the statistical analysis? You have five treatment groups and the analysis is repeated for multiple time points so this correction is definitely needed. Unlike some post-hoc tests, Fishers LSD doesn't automatically correct for multiple comparisons, as far as I understand.

Minor issues:

Line 54 The Ecoantibio 2017 plan needs a reference or further explanation

Line 339 At which timepoint were these hens removed?

Lines 452-454 This sentence is ambiguous and it's difficult to understand which treatment is referred to with "reported higher for the hatchability, lower for the quality score of chicks and lower for the mortality".

Line 463 change "their rather tolerant behaviour, their brooding behaviour could be optimised" to something "their rather tolerant behaviour, it may be possible to optimise their brooding behaviour"