**Title**

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**Abstract**

**Keywords**

**Introduction**

[General opening]

[Background and knowledge gap 1]

[Background and knowledge gap 2]

[Background and knowledge gap 3]

[Study aims, questions, hypotheses, and predictions]

To XXX, we XXX

Specifically, we asked XXX

Specifically, we hypothesized that XXX

We predicted that XXX

Our aims are to XXX

* Compare the breeding outcomes between lab vs. wild carcasses
* Examine the carcass use patterns between lab vs. wild carcasses
* Examine the offspring quality vs. quantity trade-off between lab vs. wild carcasses

**Materials and Methods**

*Study organism*

* A brief introduction of *Nicrophorus nepalensis*

*Experimental design*

* The details of the breeding experiments: carcass sources and taxa, pairing each wild carcass with a lab carcass of similar weight and parents from the same family lines, growth chamber settings, duration of the experiments (five rounds of experiments with a total of 123 lab-wild carcass pairs)
* Measurement: clutch size, number of larvae, larval mass, carcass use, etc.

*Nutrient composition of carcass tissues*

* Relative weight of the internal organs vs. muscle tissues in lab and wild carcasses
* Nutrient composition analysis of the liver and muscle tissues of lab and wild carcasses

*Statistical analyses*

To examine XXX, we fit a generalized linear mixed effects model (GLMM) with XXX as the response, YYY as the fixed effects, and ZZZ as the random effects. We use a XXX distribution with a YYY link function because the response is XXX.

The GLMM is fitted via the glmmtmb() function in the R “glmmTMB” package (citation).

We check the model assumptions using quantile residuals generated from the function “simulateResiduals()” in the R “DHARMa” package (citation).

We use the likelihood ratio test to assess predictor significance using the “Anova()” function in the R “car” package (citation).

We also perform pairwise comparisons of the estimated marginal means between treatment levels with XXX multiplicity adjustments using the R “emmeans” package (citation).

All analyses are performed in R version XXX (citation).

**Results**

* Egg outcomes

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* Larval outcomes





* Carcass use patterns



* Offspring quality-quantity tradeoff



**Discussion**

[Summary of the main findings]

[Main finding 1 and discussion]

[Main finding 2 and discussion]

[Main finding 3 and discussion]

[Limitations and potential caveats]

[Conclusions]

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**Conflict of interest**

The authors declare no conflict of interest regarding this manuscript.

**Author contributions**

XXX conceived the ideas; XXX designed the experiments; XXX conducted the experiments; XXX collected the data; XXX analyzed the data; XXX wrote the first draft of the manuscript with input from XXX. All authors revised the manuscript and approved the final version for publication.

**Data availability statement**

Data and code used in this manuscript will be publicly available on Zenodo if the manuscript is accepted for publication.

**References**

**Tables and Figures**