**Table and figure captions**

Table 1. A summary of the GLMM results for the breeding outcomes and carcass use efficiency of *Nicrophorus nepalensis*. The pronotum widths of the parents and parent generation were included as the covariates in all models.

Figure 1. The relationship between carcass weight and clutch size (a), hatching success (b), brood size (c), and brood mass (d) on lab and wild carcasses. Note that the observations without any larva were excluded from the brood mass analysis. Lines represent the statistically significant relationships predicted from GLMMs (*α* = 0.05); shaded areas represent the 95% confidence intervals.

Figure 2. The relationship between carcass weight and carcass use efficiency on lab and wild carcasses. Note that the observations without any larva were excluded from the analysis. Lines represent the statistically significant relationships predicted from GLMMs (*α* = 0.05); shaded areas represent the 95% confidence intervals.

Figure 3. Brood size (a), brood mass (b), average larval mass (c), and carcass use efficiency (d) on wild mammal, bird, and reptile carcasses. Points represent the means and error bars represent the standard errors. Note that the observations without any larva were excluded from the brood mass analysis.

Figure 4. Tissue protein and fat content (a–d) and larval growth (e and f) on lab and wild carcasses as well as on wild mammal, bird, and reptile carcasses. Points represent the means and error bars represent the standard errors. Letters denote significant difference with Tukey multiplicity adjustment (*α* = 0.05).

Figure 5. The relationship between larval density and average larval mass on lab and wild carcasses. Lines represent the statistically significant relationships predicted from GLMMs (*α* = 0.05); shaded areas represent the 95% confidence intervals.