Dear Editors of *Ecology*,

We are pleased to submit the manuscript entitled “**Carcass size, not source or taxon, dictates breeding performance and carcass use in burying beetle**” for consideration as an *Article* paper in *Ecology*.

The breeding biology of burying beetles is a fascinating area of research and has been frequently used to test ecological hypotheses. However, most studies have used laboratory-reared carcasses of limited sizes and taxa, hindering our understanding of how various carcass attributes may influence the breeding performance of burying beetles. Our work addresses this question by using a broad range of carcass sizes from both lab and wild sources. We captured for the first time optimal breeding outcomes on medium-sized carcasses. Moreover, our findings demonstrate that breeding outcomes, carcass use, and larval growth do not differ between carcass sources or among carcass taxa (mammal, bird, and reptile), despite variations in their tissue nutritional composition. Finally, we identified a larval quality-quantity trade-off across the range of carcasses studied, and the larval life-history traits can shift depending on carcass size. Taken together, our results elucidate how carcass resources shape the breeding performance of burying beetles. Importantly, our study provides solid evidence validating decades of research using lab carcasses to study the reproductive ecology of burying beetles.

We believe our novel findings will be of great interest to the scientific community and the readers of *Ecology*. We declare that this manuscript is original, has not been published before, and is not under consideration for publication elsewhere. We have no conflict of interest to disclose.

Thank you very much for considering our work and we look forward to publishing with *Ecology*.

Sincerely,



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On behalf of Gen-Chang Hsu, Wei-Jiun Lin, Chi-Heng Hsieh, and Yue-Jia Lee