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To the editors of *Functional Ecology*:

Enclosed, please find a manuscript my co-authors and I believe would be ideally suited for *Functional Ecology*. In this article, entitled, “Predator-prey interactions of terrestrial invertebrates are determined by predator body size and species identity”, we present results of a study examining how predator functional traits shape predator-prey interactions in invertebrate communities. We believe this study is directly in the scope of *Functional Ecology* by providing an exploration of mechanistic and generalizable patterns of community predator-prey interactions, linking interaction outcomes to predator traits in a model system with broader implications across terrestrial invertebrate taxa globally.

Our findings suggest that generalizable predator traits are key to shaping predator-prey interactions for terrestrial invertebrates, predicting the body size of prey that predators can consume. Interestingly, while these predators (including spiders, insects, and centipedes) use hunting traits such as venom and webs, we did not find consistent benefits of these hunting strategies in increasing the size of prey that predators could consume. Instead, these relationships were driven by predator species identity. By using diet DNA metabarcoding data, our study provides novel and highly valuable interaction data for a set of organisms (terrestrial invertebrates including spiders, insects, and centipedes) for which we have limited observed knowledge. Terrestrial invertebrates are the most abundant and diverse taxa on earth, so their functional roles in ecosystems are likely to strongly impact community structure and ecosystem dynamics. Therefore, we believe this study is timely and of general interest to the readers of *Functional Ecology* because it provides evidence for how general mechanistic rules based on organismal traits shape community interactions and dynamics among ecosystem-regulating taxa for which we have had limited data.

The work in this manuscript is all original research carried out by the authors and all authors agree to its content. We have no conflicts of interest to report and have received appropriate approvals to conduct this research. The results in this manuscript have not been submitted for publication elsewhere, nor are they previously published. We look forward to hearing your thoughts on this work. Please feel free to contact me with any questions about this material. On behalf of my co-authors, I thank you for your consideration of our submission.

Sincerely,



Ana Miller-ter Kuile