Dear Mr. Hsu,  
  
Thank you for your patience as your manuscript was reviewed for Oecologia. One of our Handling Editors oversaw the review process and input was solicited from external reviewers. Based on these reviews, the Handling Editor has made a recommendation to reject this manuscript. As you will see below, the reviews raised significant concerns about the manuscript that neither the Handling Editor nor I feel can be adequately addressed in a revision. Accordingly, I have decided to reject the manuscript.  
  
The number of submissions to Oecologia has been increasing steadily.  We now accept only the top 20 percent of submitted manuscripts. Many manuscripts that are rejected go on to be published in more specialized journals.  
  
Thank you for considering Oecologia as an outlet for your research results and hoping that the reviews will be useful should you decide to revise the manuscript and submit to another journal.  
  
With kind regards,  
  
Nina Farwig, Dr.  
  
Editor in Chief,  
Oecologia  
  
COMMENTS TO THE AUTHOR:  
  
Reviewer #1: General comment:  
In this short manuscript the author proposes a novel and refined methodological approach to quantitatively assess the scale of intra-guild predation in natural food webs. The approach consists of standardized laboratory feeding trials together with stable isotope analyses carried out simultaneously in laboratory-fed and -reared animals as well as in animals trapped in the field. Although this is not explicitly stated early on in the manuscript, the author seems to have a specific terrestrial (agro-)ecology experimental setup in mind, as shown by the illustrations and to some extent also by choice of the literature cited. Overall I have the feeling that the scope of the proposed methodology remains a bit opaque. Is this mainly an agro-ecology or biological control methodology or is it relevant to the wider field of (terrestrial?) ecology? In my view this manuscript's scope would need clarification to properly assess its suitability for publication in Oecologia. Find some more specific concerns and suggestions more detailed below.

General suggestions: I think this manuscript is not as well connected to existing literature, particularly in terrestrial food web ecology as it should be (e.g. several relevant papers in a special issue on soil food webs in Oikos are not referenced; see Brose and Scheu 2014). More specifically my concern here is that several recent papers that looked particularly at three- and four-species experimental systems - explicitly with mesopredators and IGP - are not at all considered. For example the work by Schneider and colleagues (Schneider et al. 2012, Schneider and Brose 2013) seems very relevant here. According to their approach most variation of interaction strength in the individual species interactions can be explained by predator and prey body sizes through 1. a hump shaped relation of attack rates and interaction strength and, 2. the general abundance mass scaling in food webs (i.e. small organisms are abundant, large organisms are rare; also see Kalinkat et al. 2013, Ehnes et al. 2014). These considerations need to be taken into account when applying the framework proposed in the study. Another issue that seems very relevant for the application of the proposed methodology is the temporal factor. It remains completely open if the proposed approach is suited for feeding trials of just one or very few days equally as there is no information given on the upper temporal limits such an experimental approach could have. From my basic knowledge of stable isotope methods there would be need to clarify a minimum and a maximum time frame for the methods to be usefully implemented. Frankly, the omission of a proper treatment and discussion of the time scope issue seems particularly surprising given that this was a main point in the previous publication by the same author (Hsu et al. 2021).

Specific suggestions:  
p.3 l.34: recent studies by Stella Uiterwaal have looked at this in feeding trials, could be cited here (Uiterwaal and DeLong 2018, Uiterwaal et al. 2019).

p.4 ls.56-58: As already mentioned above allometric considerations have been proposed to address this gap and seem to work well for some settings and research questions. As both abundance and interaction strengths scale with body size quantitative predictions are possible and can explain empirical patterns well (Schneider et al. 2012, Schneider and Brose 2013, Kalinkat et al. 2013). The implications of these allometric constraints could be discussed, but should at least be shortly mentioned.

p.5 l.67: write "an example of a terrestrial three-species omnivorous arthropod food web"

p.5 l.69-72: As already mentioned above I'm wondering here what should be "an appropriate" time frame for this kind of trial? A certain percentage of lifetime so it could be adapted to different species? A concrete time frame like one month? Or just 24 hours? This should be presented in a way that others can adopt it for their specific species and ecosystem requirements with more detailed instructions for experiments.   
  
References:  
Brose, U. and Scheu, S. 2014. Into darkness: unravelling the structure of soil food webs. - Oikos 123: 1153-1156.  
Ehnes, R. B. et al. 2014. Lack of energetic equivalence in forest soil invertebrates. - Ecology 95: 527-537.  
Hsu, G.-C. et al. 2021. Pest consumption by generalist arthropod predators increases with crop stage in both organic and conventional farms. - Ecosphere 12: e03625.  
Kalinkat, G. et al. 2013. Body masses, functional responses and predator-prey stability. - Ecol. Lett. 16: 1126-1134.  
Schneider, F. D. and Brose, U. 2013. Beyond diversity: how nested predator effects control ecosystem functions. - J. Anim. Ecol. 82: 64-71.  
Schneider, F. D. et al. 2012. Body mass constraints on feeding rates determine the consequences of predator loss. - Ecol. Lett. 15: 436-443.  
Uiterwaal, S. F. and DeLong, J. P. 2018. Multiple factors, including arena size, shape the functional responses of ladybird beetles. - J. Appl. Ecol. 55: 2429-2438.  
Uiterwaal, S. F. et al. 2019. Arena size modulates functional responses via behavioral mechanisms. - Behav. Ecol. 30: 483-489.  
  
  
Reviewer #2: The author combines N isotope values from laboratory feeding trials and estimates of consumed mesopredator numbers in a top predator with field data on naturally occurring N stable isotope values. The lab derived feeding curves are then used to relate the degree of intraguild predation to field derived isotopes signatures. The results are confirmatory, in the sense that they show that higher proportions of intraguild prey result in N enrichment, but the step to apply these to measured N isotope values from the field is not justified for generalist predators with a wide prey spectrum. I provide arguments in the more detailed comments and do not think that this manuscript makes a justified contribution to the field of predator ecology.  
  
Lines 33-34 "However, the confined settings in these experiments could potentially alter the encounter rates between organisms and thus lead to biased results." Please explain how IGP rates estimated from an artificial three species food chain in a laboratory setting would realistically inform any field derived isotope estimates. I would argue that the setting you propose is more confined than these field experiments.  
  
Lines 56-58 "So far, there is still a lack of quantitative information regarding the intensity/degree of IGP in the field, and such information is the first step towards a deeper understanding of food web dynamics." I fully agree with the limited knowledge about per capita consumption of IG prey as molecular gut content or stable isotope analyses alone would not provide such data. The author should however not forget the many studies that focused on visual estimates of diet composition in spiders. Just a few examples:  
Nyffeler, M. (1999). Prey selection of spiders in the field. Journal of Arachnology, 317-324.  
Nyffeler, M., & Sunderland, K. D. (2003). Composition, abundance and pest control potential of spider communities in agroecosystems: a comparison of European and US studies. Agriculture, Ecosystems & Environment, 95(2-3), 579-612.  
Birkhofer, K., & Wolters, V. (2012). The global relationship between climate, net primary production and the diet of spiders. Global Ecology and Biogeography, 21(2), 100-108.  
  
Lines 62-65 "The feeding trials will experimentally link different levels of mesopredator consumption by top predators to the changes in their nitrogen isotope signatures (δ15 N) via a standard curve, to which the isotope signatures of field samples are compared to estimate the degree of IGP in the field." I really do not think this is appropriate: 1.) isotope ratios in predators result from their life-time feeding history and do not just reflect recent diet composition, so any calibration of these ratios to a simple estimate from a tri-trophic chain reflects a huge simplification in space and time and 2.) more complex interactions like secondary predation or facultative scavenging will completely blur the calibration as this is not reflected in the simple lab estimates. The statement in lines 87-88 "The degree of IGP in the field can thus be estimated by interpolating the empirical Δ15 N to the standard curve (Fig. 1e)." indicates the major issue: a predator's N isotope ratio is not simply a consequence of the mix of two prey species.  
  
Lines 93-98 "The proposed experimental framework leverages the strengths of previous approaches to studying IGP—the controlled feeding trials combined with stable isotope analysis can yield accurate experimental Δ15N to construct a standard curve, whereas the empirical Δ15 N derived from stable isotope analysis of field samples reflects the trophic interactions under natural settings." This is an unjustified conclusion. This study does not present any data about intraguild predation under natural settings. Just because there is a curve fit between the Δ15 N values of lab fed predators in prey treatments with different proportions of mesopredator prey does not support the conclusion that this method provides a reliable estimation approach for IGP from field measures of Δ15 N values. It simply shows, that under artificial and simplified two prey treatments, the assumption of higher Δ15 N values under higher IG prey shares is correct. This is common knowledge, but very often  
complicated or masked by secondary predation, scavenging or the fact that predators consume a very diverse mix or prey over their life time.