Associate Editor Comments to Author:  
  
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Comments to the Author:  
The manuscript "Free ride without raising a thumb: A citizen science project reveals the pattern of active ant hitchhiking on vehicles and its ecological implications" takes an interesting approach to looking into ant dispersal and possibly invasion biology. I think that with the revisions suggested by the reviewers, it will be a great short communication for the Ecological Entomology readers.  
  
Reviewer(s)' Comments to Author:  
  
Reviewer: 1  
  
Comments to the Author  
The study of ant hitchhiking is novel and provides a unique angle to look into how human activity changes ant behavior, potentially affecting the ecology.  The manuscript could provide more information: 1) Are the hitchhiking species also presented in the destination area? 2) Is there any food in the vehicles (If not, it can rule out the possibility of foraging rather than migration)? 3) How do we know if the ant is hitchhiking rather than relocating the nest? In that case, is there any evidence showing the ants would leave the vehicles after arriving at the destinations?  
  
Reviewer: 2  
  
Comments to the Author  
In this study, the authors collected self-reported social media data on the presence of ants in cars and scooters, as well as the intended distance of the next destination of the vehicle, the length of time the vehicle was parked, and the enviromental conditions and season. They received 52 reports, of which 3 included a report of a queen, and 8 (potentially overlapping the previous 3) included brood. They conclude that vehicles have the potential to spread ants even without the transport of nesting substrate (i.e. soil, plant matter).  
  
This study asks a sensible question which is interesting to invasion biologists. However, it is also very small, and some critical information is missing. Most importantly, we do not know what the sampling effort was like, so we cannot estimate in any way the scale of the issue raised. Is hitchhiking common? My guess would be yes, because the chances of people becoming aware of the facebook group are low, so the overlap of those people and people who note an ant infestation should be even lower. Perhaps some sort of discussion of how common this behaviour is would be useful.  
  
The definitions are not quite clear: are ALL events of ants on vehicles noted - including just some workers walking around outside or inside the vehicle? Or are only situations considered where it looks like ants are moving in: many individuals grouped together in a small gap or hidden space? This needs clarifying, as I do not think a forager or two walking on the surface of a car is ecologically interesting, while the presence of brood and queens certainly is. I think occasions of a few workers on the outside of the car should not be included in the dataset.  
  
The finding that most of these hitchhiking events occurred under trees, especially in contact with trees, is very useful, as is the seasonal data. This could lead to clear guidelines about parking cars, for example when they are stored en-masse for later transport, or of rental cars. With that said, it seems unlikely that the vast majority of people will be willing or able to change their behaviour based on such guidelines.  
  
Useful would be some sort of information about where in the car the ants were found – especially the incidence with queens or brood.  
  
Finally, I am not quite sure how relevant the work is to the journal Ecological Entomology. This work seems to belong more in a specialist invasion biology journal. But this is an issue for the editor.  
  
Overall, this work provides a nice proof of principle that cars can act as a dispersal mechanism for ants. As such, I think it is a worthwhile piece of work and should be published. Whether this journal is the right venue for it, is not quite clear.  
  
I will end with some minor comments.  
  
Abstract – please mention specifically how many of the incidents involved queen or brood  
Line 54 pg 3 – this is not systematic data collection.  
Line 54 pg 3 – this is not metadata. It is data. Metadata is essentially the description of what the different data categories are.  
Line 31 pg 4 – did the 8 incidents of brood include the 3 incidents of queens?