Dear Dr Rutledge,  
  
A new review report has been submitted by a Reviewer 2. Once the other Reviewer(s) have submitted their comments, you will be granted access to the reports in the review forum, so that you can begin your revisions. Please be ready to respond and revise your manuscript promptly when they do.  
  
Please click here to access this manuscript directly:  
[http://review.frontiersin.org/review/1179368/0/0](https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Flinks.email.frontiersin.org%2Fls%2Fclick%3Fupn%3D4gcT8YeGNYAyT1D1Kij3w76tlQ728Hzl9UkvEyqOew1eMRXYEHbZf4iflkn8o0UkRz4btMIQ1YgHxPEUOLnkHg-3D-3D61PU_ExBZLZUDmKnXOWqhbfUH-2Baw1VnAFjEZ-2FMXVNMk9qjXWFRDtbebxga86yQlXTP0w1xYzsOUgw07BLg3tBZPc9e1ehzhMf2zbniYz-2FeLSk3ADHhfvH-2FxZ2l7WIBhwGzlL-2FrmKhspLA-2FB379uk1z570v4iQ-2BgN8E0lvR-2FXTt0iYFN0M4oIvOXQy3crOo4Z6GsB6GFNy03uNFk4q9sSavySqhpAIOEzIaPQ-2Fwyxl8B8eOs3zJeUX3MV9L51dMhiwu5CwwjNmdl5XQQmLFmpOQoTxvtY-2FnW-2Bigc4u3b8TO1pCacWeSREcGTpf16aRc9kZ5-2BxY&data=05%7C01%7Cclaire.rutledge%40ct.gov%7Cba795685108d4a05f31508db2c0aebab%7C118b7cfaa3dd48b9b02631ff69bb738b%7C0%7C0%7C638152197663413978%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=eDcSvhhvImV1NdpklUxyHBiuJ4cHruh%2BTtJqHoml45g%3D&reserved=0)  
  
Manuscript title: Temporal and spatial dynamics of the emerald ash borer invasion in Connecticut as shown by the native digging wasp Cerceris fumipennis (Hymenoptera: Crabronidae).  
Manuscript ID: 1179368  
Authors: Claire Rutledge and Robert E Clark  
Journal: Frontiers in Insect Science, section Invasive Insect Species  
Article type: Original Research  
Submitted on: 04 Mar 2023  
  
Best regards,   
Your Frontiers in Insect Science Team,  
  
Frontiers | Editorial Office - Collaborative Peer Review Team   
[www.frontiersin.org](http://www.frontiersin.org)   
Avenue du Tribunal Fédéral 34   
1005 Lausanne Switzerland   
  
For technical issues please contact our IT Helpdesk ([support@frontiersin.org](mailto:support@frontiersin.org)) or visit our Frontiers Help Center (helpcenter.frontiersin.org)  
  
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  
Independent Review Report, Reviewer 2  
EVALUATION  
Please list your revision requests for the authors and provide your detailed comments, including highlighting limitations and strengths of the study and evaluating the validity of the methods, results, and data interpretation. If you have additional comments based on Q2 and Q3 you can add them as well.  
The authors of this manuscript present interesting long-term data obtained from a unique method of surveying for emerald ash borer via a dominant predator, Cerceris fumipennis. I find the data presented to be suitable for publication and of interest to a general audience, but that the manuscript requires major revisions. I have embedded edits and comments within the attached PDF and outline a summary of my concerns and suggested revisions below.  
  
1) My most significant concerns for this manuscript are statistical. No statistical comparison between the theoretical and observed population curves is presented and this hinders interpretation of the results and the ability to discuss observed trends. Additionally, the temporal data (proportion EAB in wasp prey capture ~ year post-detection) appear to be fitted with a linear quadratic model, while a logistic model is most suitable for proportion-based dependent variables. I suggest refitting the data using logistic regression and, if possible, constructing a theoretical curve for direct comparison. This approach will greatly strengthen the interpretation of the results. The spatial data appear to be handled appropriately, although it would be nice to see some statistics associated with the rate of spread illustrated by the Empirical Bayesian Kriging interpolation maps.

*Thank you for the suggestions. We agree with the reviewer and have revised our analysis of the empirical data, using a significantly more robust mixed modelling approach (logistic GLMM) that is better suited to our proportion data (Figure 2).*

*Empirical-theoretical comparison goes here.*

*Additionally, we have estimated a rate of spread to compliment figure 3 as recommended by the reviewer using a Gaussian process model (line xx).*

2) Content-wise, there are some important omissions from the text of the manuscript. Critically, text explaining how the data for Figure 2 were handled and analyzed is missing from the methods section. The methods section in general should be updated to illustrate approaches to data collection and analyses more clearly, which will in turn increase reproducibility. All figure and table captions should be reviewed, and information added (especially location), to render them as stand-alone entities.

*Methods have been revised to reflect the updated analyses for figure 2 and rate of spread (lines xx).*

*…*

3) This paper would benefit from some restructuring, particularly in the methods and results sections. As I have indicated throughout the PDF, there is content present in incorrect sections of the manuscript and reorganization, while retaining flow, is recommended.   
  
4) Minor and moderate punctuation, tense, and sentence structure, and formatting errors are present throughout the manuscript. I have edited through many of these, but careful attention should be paid before resubmitting the next version of the document. There is also a substantial section of duplicated text in the discussion.  
  
I am optimistic that by addressing the revisions I have outlined above and in the attached PDF the authors will produce a manuscript suitable for publication in Frontiers in Insect Science and a valuable contribution to the EAB literature.  
Check List  
a. Is the quality of the figures and tables satisfactory?  
No  
b. Does the reference list cover the relevant literature adequately and in an unbiased manner?  
Yes  
c. Are the statistical methods valid and correctly applied? (e.g. sample size, choice of test)  
No  
d. Is a statistician required to evaluate this study?  
No  
e. Are the methods sufficiently documented to allow replication studies?  
No  
QUALITY ASSESSMENT:  
Rigor  
3  
Quality of the writing  
3  
Overall quality of the content  
3  
Interest to a general audience  
4