

# Prediction of FAW parasitoids dispersal

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# Assumptions



Keeping in mind that we were dealing with biological organisms with a complex habitat, **the following assumptions** were made when selecting the input parameters of the dispersal model:

1. The primary assumption here is that the parasitoids would disperse **within the same habitats** where FAW can survive, hence the need to measure the habitat suitability of the pest;
2. This study considered that the colonized area per month had **a radius of 1km**;
3. The host plant area of the target insect was set as **the domain** of the dispersal, i.e. the lack of suitable host plants for FAW constitutes a barrier beyond which parasitoids cannot disperse; and
4. A cell of parasitoids host **habitat suitability** with an optimum probability greater than **0.3** is expected to be colonized.



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# Assumptions



- ❖ Taking into account the mentioned assumptions, we simulated the spread of the parasitoids, starting from the time and locations of release.
- ❖ We simulated the **parasitoid dispersal** (*Telenomus remus* and *Trichogramma chilo*) from the date of release to one year in future, i.e., **May 2023**

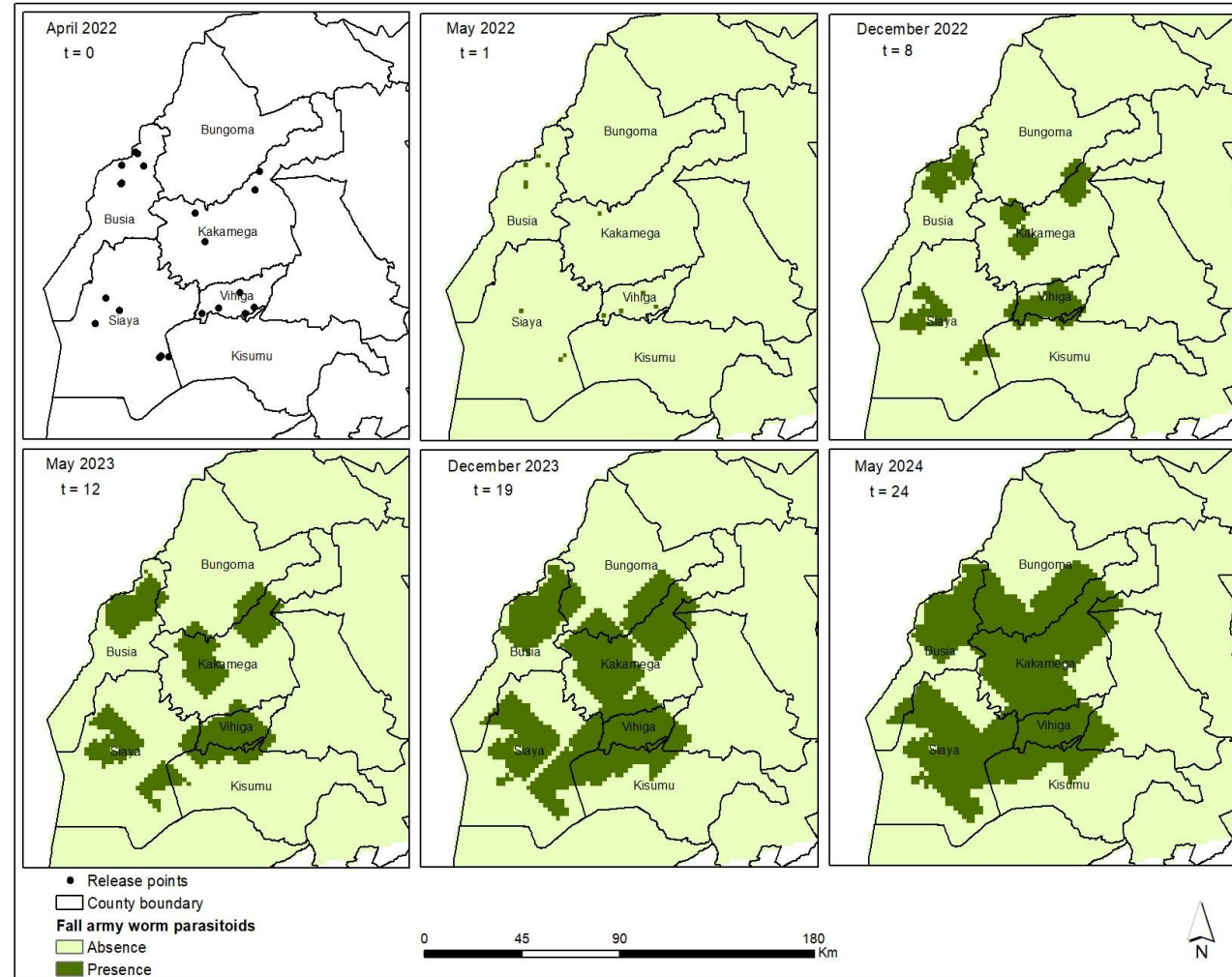


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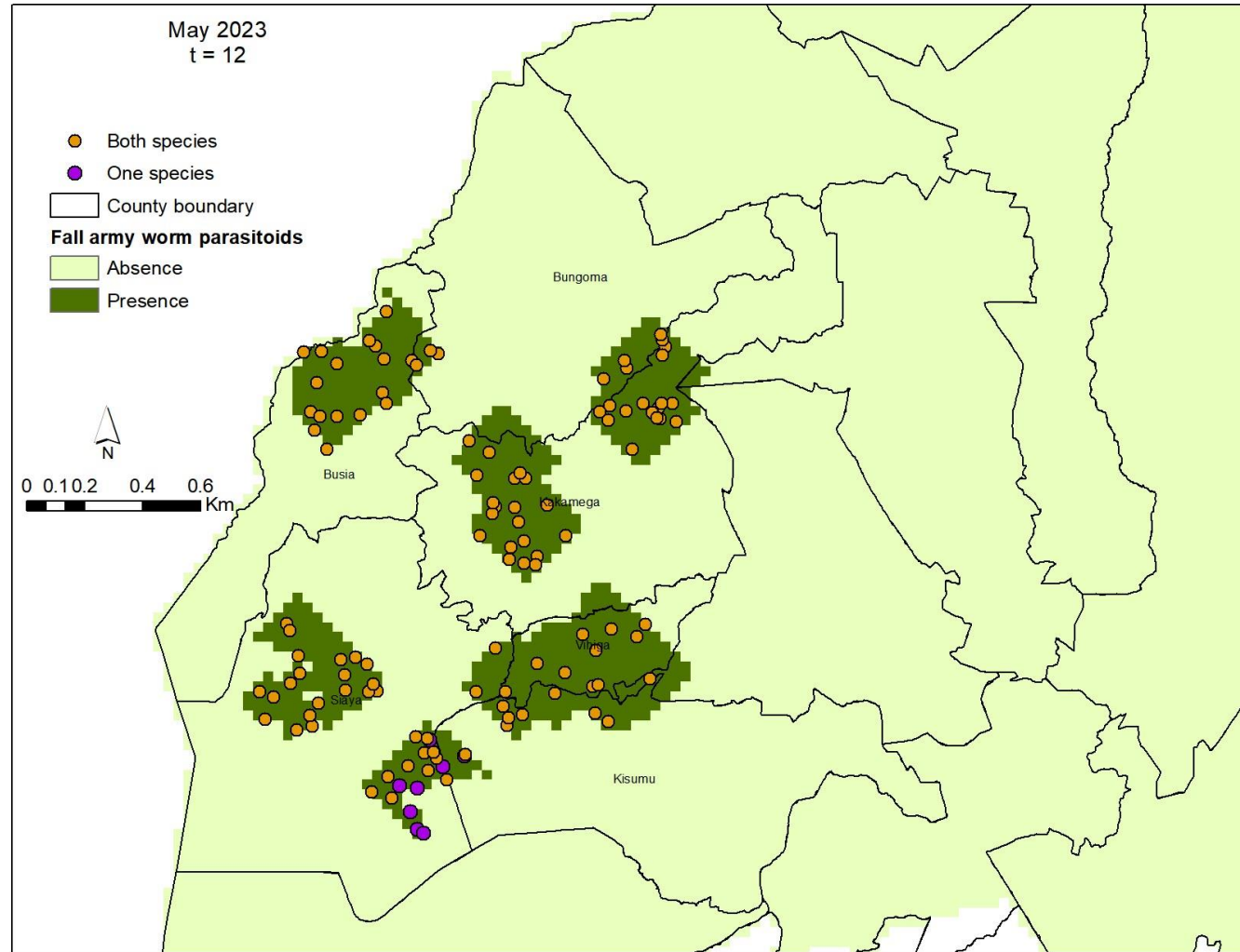


# Results



# Results

Validation  
Accuracy 0.93  
One species is  
*Telenomus remus*







# Thank you

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