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Introduction

Many farmers in the DR Congo are unaware of the benefits of maintaining entomological diversity and the roles that beneficials play in agroecosystems. The purpose of this study is to assess the diversity and abundance of insect pests and beneficials associated with cabbage crops in the eastern DR Congo. The presence of different functional groups is assessed according to the geographical differences of the sampling locations.

Material and methods

- Five locations showed on Fig. 1 were monitored during 2021 and 2022
- For each location, ten elementary plots of 10m² respectively selected from cabbage farms of at least 500m² were monitored
- Three samplings were carried out per site per cropping season following the cabbage growth
- Samplings were mainly carried out using yellow pan traps and sweep net

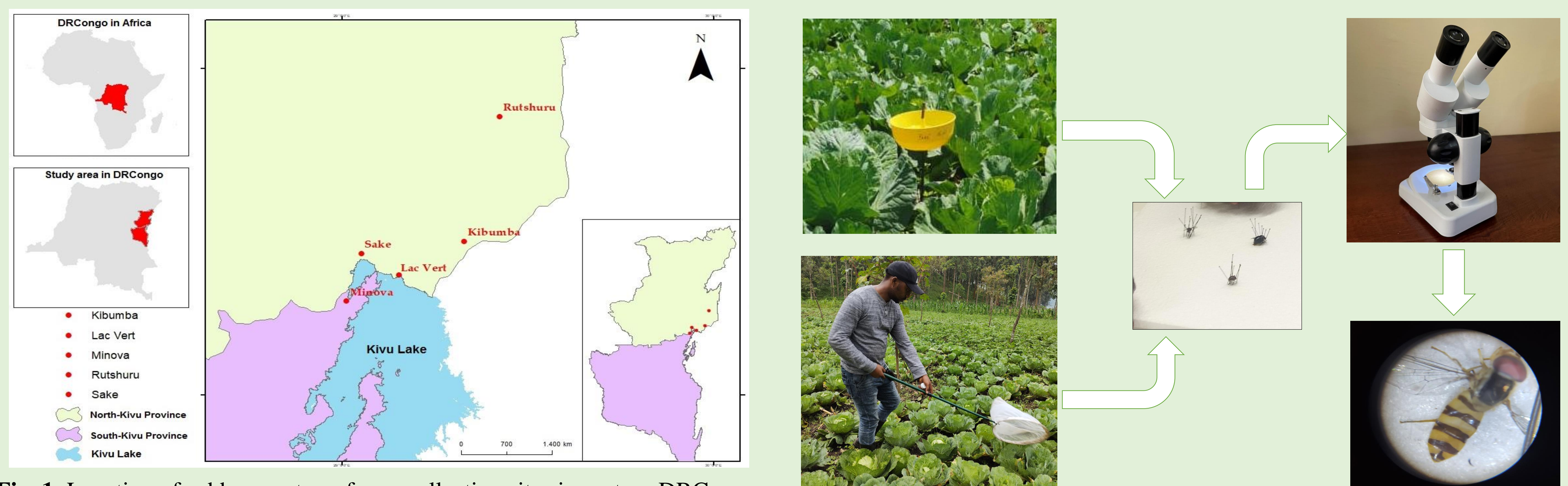


Fig. 1: Location of cabbage entomofauna collection sites in eastern DR Congo

Results

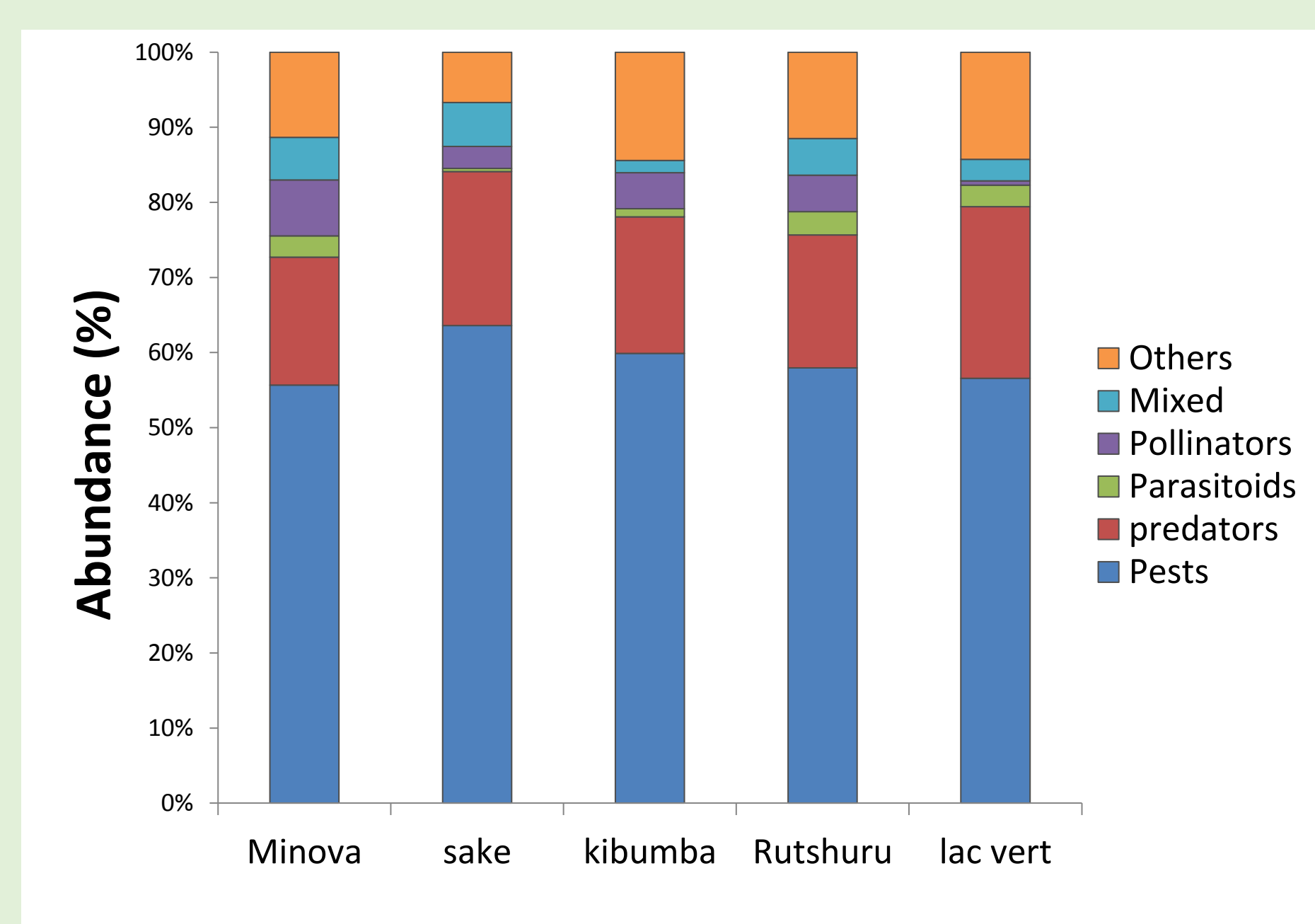


Fig. 2: Relative abundance of functional insect groups by site

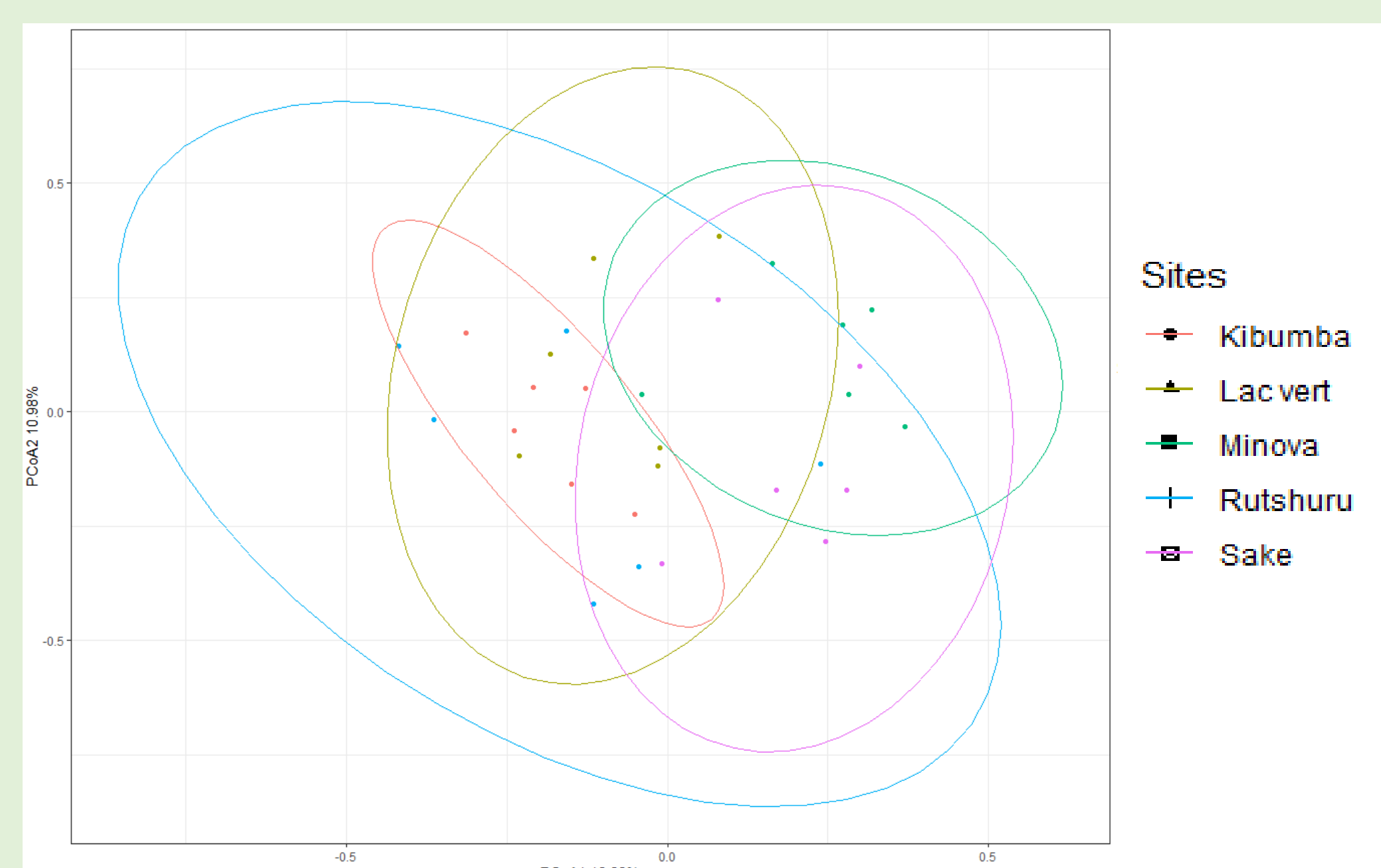
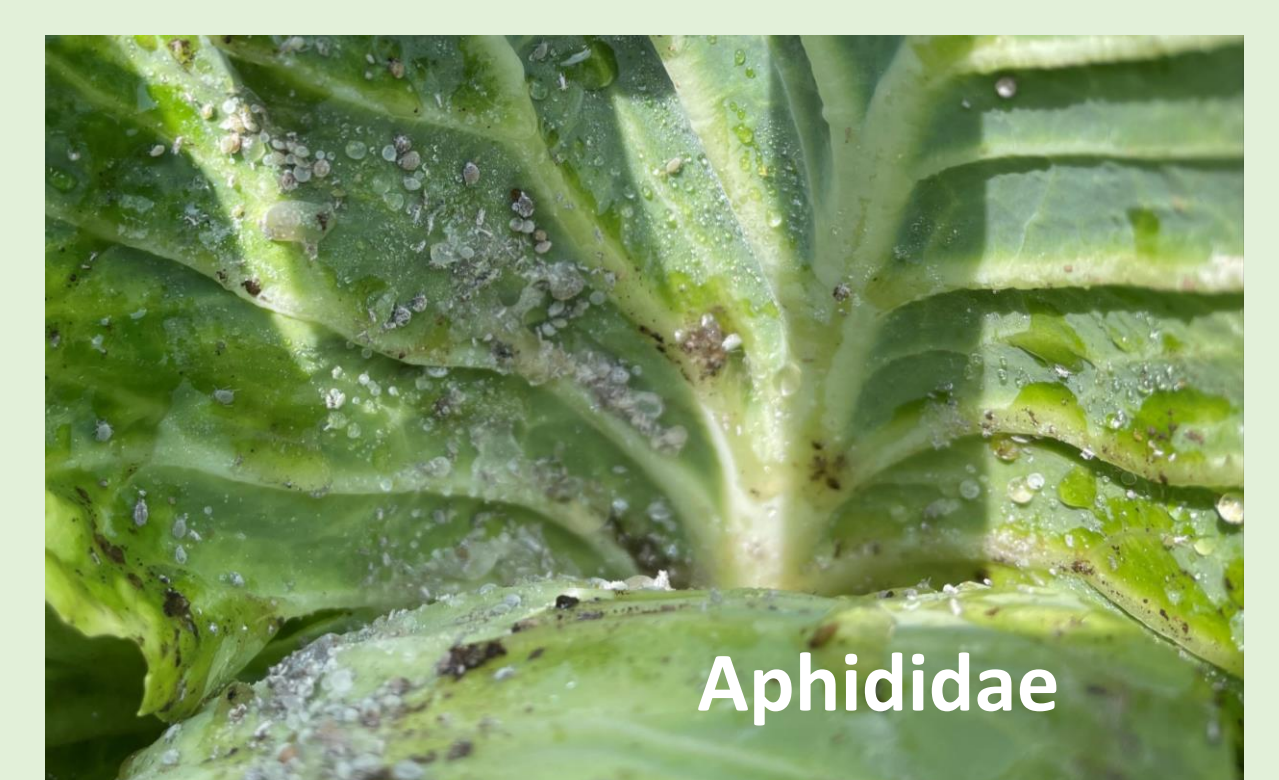


Fig. 3: Principal Coordinate Analysis (PCoA) showing the community structure of insect families in five different habitats. Points in the PCoA plot represent insect samples each colored and shaped according to the sampling site.



Discussion and Conclusion

- A total of 1109 insects classified into 9 orders including 49 families were collected;
- Hemiptera and Coleoptera orders rank first and second with the highest number of identified families;
- Visual observations showed a high number of Aphididae, especially *Brevicoryne brassicae*;
- Aphids and caterpillars are among the main pests found to cause severe losses on cabbage;
- Beneficials identified (Apidae, Syrphidae, Braconidae, ...) provide important ecosystem services (pollination, biological control) for crop production. It is wise to preserve them through good selection of control methods.

Acknowledgements

