



# BIOLOGY CENTRE CAS

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### Supervisor's report: Thesis of Mélanie Thierry

In her PhD, Mélanie experienced a rich palette of challenges and opportunities connected with joining a freshly started research group. The quality of resulting chapters shows that Mélanie has done a very good job in these conditions. All four chapters are already at least submitted to a journal which is impressive; for comparison it is twice as many than Mélanie's supervisor had at the end of his PhD. I expect the chapters will be published well and will make impact in the research community. The review chapter 1 is already quite well cited.

At the beginning of the thesis topic was a desire for more mechanistic understanding of terrestrial ecological networks. To achieve that, we set out to establish a new model system of *Drosophila* – parasitoid networks and Mélanie had an important role in this. First, she helped collect many live fly and wasp lines in Australia (in collaboration with Megan Higgie, James Cook University). Next, Mélanie pioneered experimental procedures and quickly got a good grasp of the system, which allowed her to probe mechanisms structuring host-parasitoid communities from multiple angles in her thesis chapters. After successful community experiments spanning one generation, Mélanie attempted a laborious community dynamics experiment over multiple generations. And then again. Unfortunately, neither of the attempts was succeeded, yet they paved the way for the next successful attempt by Miguel. Mélanie also collaborated reciprocally with other lab members and will have a healthy share of co-author papers from her PhD.

Mélanie didn't let down any opportunity to improve at statistics and raised her quantitative ecology skills to an excellent level. Further, she combined the experience in designing experiments with writing skills and secured a competitive student grant from Grant Agency of University of South Bohemia.

Owen Lewis from University of Oxford served as Mélanie's co-advisor, widening Mélanie's professional network. Mélanie also started to develop her own links outside the lab group and organized her stay at Ulrich Brose's lab at iDiv, Germany to train in ecological modelling. This new collaboration is on a good way to result into another paper.

Overall, I think that Mélanie's thesis substantially contributes to mechanistic understanding of ecological communities and fully deserves awarding the PhD. I wish Mélanie all the very best for the future.

14 September 2021 in České Budějovice

Jan Hřeček