

MSc thesis opportunity at VFM (30-60 credits)

Trophic cascades in Białowieża Primeval Forest Ungulate – rodent – plant interactions in a long-term enclosure experiment

Intro: Ungulates and rodents are important herbivores in ecosystems worldwide. They may often use the same food resources and likely influence each other. Our knowledge on the relation between ungulates and rodents in Europe is limited. Moreover, most studies looked at the impact of ungulates on rodents and not *vice versa*. In this project we will use long-term enclosure plots in Białowieża Primeval Forest, Poland, to test if ungulates change the abundance and diversity of rodents. Secondly, we will test if such changes cascade down the food web and lead to different impacts by rodents on woody plants. These woody species are food for the ungulates, and as such ungulate impact on rodents might feed-back to the ungulates.

Project type and duration: The project includes 2-4 months of field work (depending on the length of the thesis project) in Poland, where you will be based at the Mammal Research Institute (MRI) in Białowieża. The Białowieża Primeval Forest represents one of the few fragments of pristine European lowland forest with limited human influence. Moreover, it is one of the few areas in Europe where the complete community of native ungulates still occurs; i.e. roe deer, wild boar, red deer, elk, and European bison (next to their predators wolf and lynx). You will trap rodents using life traps in 30 long-term enclosures and paired control plots. You will also characterize vegetation in the plots in terms of food availability and shelter against predation risk for rodents. Finally, you will assess rodent browse impact.



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