

# ABSTRACT

Several methods are used for studying seed dispersal (seed traps, tracking individual seeds, tracking seeds coloured by fluorescent colours, etc.) However, only a few studies compared results obtained by several methods. In first part of this master thesis, I compared the three above mentioned methods used for studying seed dispersal using species from *Asteraceae* family. From previous research within the study area (Ústěcko), it is known that dry grassland species are able to colonize abandoned fields. Using seed dispersal data obtained within this theses, I tried to assess the role of seed dispersal on distribution of dry grassland species on abandoned fields both on local and regional scale.

The results showed that dispersal curves obtained by the three methods differ significantly. This results may be due to different wind conditions during the experiments. Seed trap data show results from long-term seed dispersal influenced by highly variable wind conditions. In contrary, seed release experiments showed results based on single dispersal event under limited wind conditions. Tracking seeds coloured by fluorescent colours was shown to be not convenient for small seeds, but I can recommend this method for larger seeds. Influence of seed dispersal ability on abundance of dry grassland species on abandoned fields were evaluated. It has no significant effect on local scale whereas on regional scale, anemochory and endozoochory were significantly influenced species occurrence on abandoned fields. I therefore conclude that relative role of seed dispersal by wind differed between local and regional scale.