

## ABSTRACT

As many other species, also dragonflies can inhabit suitable urban habitats even in the centre of big cities. This study has been focused on population dynamics of two species of damselflies (*Coenagrion puella* and *Pyrrhosoma nymphula*) in urban environment. Main goal has been to experimentally study dispersal of populations and migration between these populations in the Prague city centre using mark-release-recapture (MRR) method to observe whether the urban environment does somehow act as a barrier for population dynamics. Lentic bodies located in the broader centre of the city were chosen as sufficient study sites, situated mostly in green areas. Field study took place in 2023 from the end of May to beginning of July. Every individual was given a unique code and the information about locality of every encounter was included to track movement of individuals. In total, around 1800 individuals of both species were marked in the experiment. Results of the analysis suggest that individuals from zygopteran populations are mostly connected to their parent site. Occasional migration in *C. puella* species and almost no migration in *P. nymphula* species was observed. The putative metapopulation structure of both species is discussed further. MRR also allowed to assess some basic population parameters (separately for both sexes), i.e. the population size and survivorship of each species. From a broader perspective, our study belongs to very few of those dealing with dispersal and population patterns of dragonflies in urban landscape.

**Key words:** dispersion, population dynamics, dragonflies, urban habitats