Abstract

Pollinator functional groups differ in their pollen carryover effectiveness and in the importance for particular species of plants, due to specific functional traits of pollinator functional groups. Plant species differ in their specific functional traits too. I determined pollen loads of pollinators by swabbing their bodies with a jelly to compare pollen carryover effectiveness of pollinator functional groups. This helped me to decide which pollinator functional groups are the most and the least effective in pollen carryover. I considered an influence of the last visited flower to make the comparison of pollen loads more accurate. I also calculated proportions of conspecific and heterospecific pollen grains carried on bodies of pollinators to estimate their carryover effectiveness. Likewise, I compared composition of pollen morphotypes carried on pollinator's bodies to find out differences among pollinator functional groups.

My analysis shows that pollen carryover effectiveness of particular pollinator functional groups differ. *Apis mellifera* and solitary bees have the biggest pollen loads, on the other hand, butterfies and small dipterans have the smallest pollen loads. The last visited flower influences an amount of pollen grains carried on bodies of pollinators. Relative pollen loads of some pollinator functional groups varied after taking into consideration the identity of the last visited flower. Tachinid flies and *Apis mellifera* carry the biggest proportion of conspecific pollen grains. In contrast, butterflies and big syrphids carry the lowest proportion of conspecific pollen. *Potentilla* sp. has the biggest proportion of its pollen on bodies of pollinators, the lowest have *Pimpinella saxifraga* and *Prunella vulgaris*. Particular pollinator functional groups differ in their composition of pollen morphotypes carried on their bodies.

Key words: pollination, pollen load, carryover effectiveness, pollinators, functional traits