The autumnal migration of hoverflies with special focus on sex ratio and timing of migration

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Abstract

We report four years-long observations of hoverflies' autumnal migration. Our study focused on species composition, phenology, and sex ratio of migrants. Two one-side-blocked Malaise traps were set from August to November annually since 2018. We recorded 31 species of migrating hoverflies. The timing of migration varied between seasons and species; larger hoverflies migrated earlier than the smaller ones. Moreover, the sex ratio of the four most common migrants (*Episyrphus balteatus*, *Eupeodes corollae*, *Melanostoma mellinum*, and *Sphaerophoria scripta*) differed. Female biased sex ratio was observed consistently in *Sphaerophoria scripta* and in one season in *Episyrphus balteatus*. Male biased sex ratio was observed in one season in *Eupeodes corollae*. In *Melanostoma mellinum* was the sex ratio consistently balanced, see Figure. Drivers of interspecific differences in the timing of migration and sex ratio are discussed regarding morphological and ecological traits of the species.

Keywords: migration, phenology, sex ratio

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