

FAUNA MONITORING - HOVERFLIES AND BIRDS

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TARGET GROUPS: Hoverflies (Diptera, Syrphidae) and birds (Aves).

HOVERFLIES:

Hoverflies are an important indicator group, which provide useful ecosystem services. They are pollinators of plants and are often used for biocontrol of aphids. Furthermore, many of the species are saproxylic species which gives a good indication of the situation of the forest.

Methods: Transect counts, window traps and malaise traps. For the first year, one transect of 100m will be established on Rožnik – an urban forest complex, and will be repeated every month from May till the end of August/beginning of September. The transect will be only conducted during optimal weather conditions (sunny and dry). For the window traps, 5 window traps will be placed every month for two weeks. These window traps have a crosspanel window (21cm wide, 40 cm high) with under it a funnel on which a plastic bottle with alcohol is mounted (Okland 1996). Furthermore, one malaise trap will be placed in the forest on a sunny spot and emptied approximately every 14 days for the 1st of April till 31 of October . The data will be analysed for selection and fine tuning of the methods. The selected method will be used for further monitoring in the selected plots.

Analysis: Trends of species and functional traits will be analysed with help of the Syrph the Net database (Speight et al. 2010) and statistical methods.



Photo 1: Malaise trap for catching hoverflies and other flying insects. Left from the trap is a temperature logger to measure temperature during the whole catching period. (Photo: A. Verlič)



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BIRDS

Birds are important indicators of disturbances in the forest. Furthermore they fulfil several functions like seed dispersers and predators, etc.

Methods:

The monitoring method will follow Bibby (Bibby et al. 2000). The birds will be monitored twice in one year with point counts. The point counts will be once done in March/April and once in April/May. The duration of the counts will be 20 minutes.

References:

- Bibby, C. J., N. D. Burgess, et al. (2000). Bird census techniques. London, Academy Press.
- Okland, B. (1996). "A comparison of three methods of trapping saproxylic beetles." *European Journal of Entomology* 93(2): 195-209.
- Speight, M. C. D., C. Monteil, et al. (2010). StN_2010. Syrph the Net on CD, Issue 7. The database of European Syrphidae. M. C. D. Speight, E. Castella, J.-P. Sarthou and C. Monteil. Dublin, Syrph the Net Publications.