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# The hoverflies (Diptera, Syrphidae) of the Querco-Castagnetum forests in the area of the candidate Locarnese National Park

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## Abstract

Since 2018, the "Working Group Sirfidi Ticino" has promoted a series of researches on the Syrphidae in Canton of Ticino (Switzerland). One of these researches investigated, by using the Syrph the Net (StN) methodology, three Querco-Castagnetum survey sites in the Locarnese region. Both woodland and open areas macrohabitats were surveyed. During the sampling between April and November 2018 with 6 Malaise traps, 1'353 hoverflies belonging to 73 species were collected, about a quarter of the syrphid known so far for Ticino. Forty per cent of these species are classified as threatened or declining at European and/or Swiss level. One species, *Merodon gallicus* Vujić & Radenković, 2012, was observed for the first time in Switzerland and eight other species for the first time in Canton Ticino. Analyses using the StN method show an insufficient biodiversity maintenance function (BDMF) of the investigated habitats as a whole, corresponding to 36%. The habitat with the most complete hoverfly community is the *Castanea* forest, with a very good BDMF value of 76%, while that of the acidophilous *Quercus* forest is only moderate (48%). In general, the results young age of the forests due to the intense past management of these areas was highlighted. Despite the deficits evidenced, the investigated forests show a high proportion of threatened or declining species and their importance in the conservation of species considered rare is undeniable.

**Keywords:** biodiversity, Switzerland, Syrph the Net

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