

## Ecosystem disturbances : an opportunity for biodiversity subsistence

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Several studies, notably involving long and short tongued bee species but also other groups such as hoverflies, showed that insects are often strongly diversified in *a priori* very inhospitable places. Also, protected areas such as natural reserves but not only, often present weaker diversified entomofauna than the ones related to agricultural lands. Some typical aspects of the insect diversity are briefly presented here as an introduction to more thorough approaches. Some data from our researches will be used to illustrate the evolution of entomological populations according to the considered habitat. Syrphid occurrence in Belgian agro-ecosystems depending on the kind of closed environment (fields, set-aside and woodlands) but also in areas not devoted to agriculture was assessed. Hoverflies from fields closed to woodlands were much more diversified while set-asides increased insect density in crops suggesting the positive impacts of semi-natural patches closed to cultivated plots. High diversity of Bombinae in the Massif Central in France, the biogeographic particularities of Andrenidae in the North of Europe and the general evolution of Apoidea in Belgian agro-ecosystems are also presented to show that ecosystems devoted to agricultural practices are rather highly diversified. Agro-ecosystem management was discussed as potential ways to enhance the insect diversity and abundance in order to increase effect of the beneficial species.

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