

Area survey of the Papilionoidea diversity in Durme- and Schelde territory, Flanders (Belgium) 2013-2017.

JURGEN COUCKUYT¹, PHILIPPE VAN DE VELDE¹, ORTWIN HOFFMANN¹, RAPHAËL WINDEY¹, PAUL DURINCK¹, THOMAS VAN LANCKER¹, TOM VERMEULEN¹.

¹ Vzw Durme, Molsbergenstraat 1, 9160 Lokeren, Belgium, couckuyt.jurgen@telenet.be

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As from 2013, volunteers of Vzw Durme started a detailed study in the area of "Durme- and Schelde" for all butterflies (Papilionoidea), focusing especially on the common species.

For this 5-years study, a national, web-based module (www.waarnemingen.be) for nature observations is used. All butterfly observations from Nr volunteers are registered. A mapping software is incorporated, documenting at 1x1km level the distribution of all the taxa and to study at a smaller scale, the detailed distribution of isolated populations.

The study area is +/- 1000 km². Main land use, typical of the Flemish scenery, consists of agriculture, residential and industrial buildings. Remaining natural areas are sparse and found along the three rivers: Schelde, Durme and Moervaart. Here one would expect most of the butterfly diversity.

In such a highly fragmented area, it is interesting to study the population size and evolution of common species like the Ringlet, *Aphantopus hyperantus* (Linnaeus, 1758) or get detailed information on the distribution of the Small heath, *Coenonympha pamphilus* (Linnaeus, 1758) and to study if the small populations are still connected.

Can such a survey provide information why the Essex skipper, *Thymelicus lineola* (Ochsenheimer, 1808) is gradually disappearing from the area or why the Silver-washed fritillary, *Argynnis paphia* (Linnaeus, 1758) is extending its range?

Preliminary results are presented, focusing on the status and evolution of "common" species, the discovery of 4 new species for the study area and the effect of using a web-based system on the investigation intensity of butterflies in Flanders (Belgium).