

**Rediscovery after seven decades of *Limnephilus ignavus* McLachlan, 1865
in Brussels and list of the caddisflies recorded
for the botanical garden Jean Massart
(Trichoptera: Limnephilidae)**

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Abstract

Limnephilus ignavus McLachlan, 1865 had not been observed since the forties in Flanders (Brussels-Capital Region included). On 27.X.2016, one male was captured with a light trap in the botanical garden Jean Massart in Auderghem (Brussels-Capital Region), close to the location where also the historical observations took place.

Keywords: Belgium, botanical garden Jean Massart, Limnephilidae, *Limnephilus ignavus*, Trichoptera

Samenvatting

Limnephilus ignavus McLachlan, 1865 werd sinds de jaren veertig niet meer waargenomen in Vlaanderen (Brussels Hoofdstedelijk Gewest inbegrepen). Op 27.X.2016 werd opnieuw één mannetje met een lichtval gevangen in de botanische tuin Jean Massart in Oudergem (Brussels Hoofdstedelijk Gewest), dicht bij de locatie waar ook de historische waarnemingen plaatsvonden.

Résumé

Limnephilus ignavus McLachlan, 1865 n'avait plus été observé depuis les années quarante en Flandre (Région de Bruxelles-Capital comprise). Le 27.X.2016, un mâle a été capturé au piège lumineux au jardin botanique Jean Massart à Auderghem (Région de Bruxelles-Capitale), site proche d'où les observations historiques ont eu lieu.

Introduction

Limnephilidae is the most diverse caddisfly family in Belgium, with *Limnephilus* being the largest genus (LOCK & GOETHALS, 2012). The species are quite big and can be recognised by their wing pattern. Most species occur in stagnant waters and their larvae are thus rarely sampled during water quality monitoring, which is mainly restricted to watercourses. However, most species are nocturnal and readily come to light. Despite their size, the number of observations only started to grow due to the increasing popularity of moths during the last decade, combined with the success of the online recording and photo posting on www.waarnemingen.be. Recently, *Limnephilus binotatus* Curtis, 1834 (LOCK *et al.*, 2010) could already be added to the Belgian fauna. *Limnephilus vittatus*, which had not been observed in Flanders since 1919, was rediscovered (LOCK, 2011), *Limnephilus centralis*, which was last observed in 1918, was rediscovered (LOCK & UYTENBROECK, 2012) and *Limnephilus luridus*, which had not been found since 1900, was also rediscovered (LOCK, 2014). In addition, *Limnephilus subcentralis* Brauer, 1857 could recently be confirmed for the Belgian fauna (LOCK &

WULLAERT, 2016). Here, also a recent observation of *Limnephilus ignavus* is reported, a species that had not been found in Flanders (including the Brussels-Capital Region) since the forties.

Material and methods

On 27.X.2016, *Limnephilus ignavus* was sampled with an automatic light trap set up in the botanical garden Jean Massart (Brussels-Capital Region, UTM: 31UFS0130, 70 m a.s.l.). This 5 ha large botanical garden is located near the 'Rouge Cloître' location, on the border of the Sonian Forest in the municipality of Auderghem. The garden, which is a Natura 2000 site, was created in 1922 to represent a number of biotopes in Belgium and it globally remained as such since its creation. The *Limnephilus ignavus* male specimen was sampled during the 'Objective 1000' network project. This project is aiming to make an inventory of the insect fauna of the botanical garden and to record at least 1000 insect and spider species on the site. Material was identified using MALICKY (1983). The collected specimen of *L. ignavus* has been deposited to the collection of the Royal Belgian Institute of Natural Sciences (RBINS, I.G.: 33177).

Results

One male of *Limnephilus ignavus* McLachlan, 1865 (Fig. 1) was sampled with a light trap in the botanical garden Jean Massart on 27.X.2016. According to ROBERT & WICHARD (1994), larvae of *L. ignavus* can be found in shallow, muddy pools fed by a source, possibly because the species is restricted to habitats with permanent cold water. Adults can be found from June till October, however, the species probably holds a summer diapause.



Fig. 1. *Limnephilus ignavus* McLachlan, 1865 (Photograph: Koen Lock).

15 other caddisfly species were recently observed in the botanical garden Jean Massart (partly during the Objective 1000 project): *Beraea maurus* (Curtis, 1834) (Beraeidae), *Agraylea multipunctata* Curtis, 1834, *Agraylea sexmaculata* Curtis, 1834 (Hydroptilidae), *Leptocerus tineiformis* Curtis, 1834, *Mystacides longicornis* (Linnaeus, 1758), *Oecetis ochracea* (Curtis, 1825) (Leptoceridae), *Glyptotaelius pellucidus* (Retzius, 1783), *Limnephilus auricula* Curtis, 1834, *Limnephilus flavicornis* (Fabricius, 1787), *Limnephilus lunatus* Curtis, 1834, *Limnephilus rhombicus* (Linnaeus, 1758), *Stenophylax permistus* McLachlan, 1895 (Limnephilidae), *Phryganea bipunctata* Retzius, 1783, *Phryganea grandis* Linnaeus, 1758 (Phryganeidae) and *Tinodes waeneri* (Linnaeus, 1758) (Psychomyiidae). Historical records from the forties are also present for *Hydropsyche angustipennis* (Curtis, 1824) (Hydropsychidae), which is a species from running water, while the recently observed species are all from stagnant waters, with the exception of *B. maurus*, which occurs in percolating water.

Discussion

Limnephilus ignavus was already observed along the borders of the ponds near Rouge-Cloître in Auderghem by A. de Bormans in the nineteenth century, from 23 August until 1 October (DE SELYS-LONGCHAMPS, 1888). On 23.X.1941, A. Collart collected one female near Rouge Cloître and G. Marlier collected another female in X.1944. The species has never been observed in the rest of Flanders. However, in Wallonia, the species is more widespread, but still rare. Observations have been done in Bosfagne, Moha (Province of Liège), Lamorteau, Mirwart, Toernich (Province of Luxembourg), Gedinne and Sart-Saint-Laurent (Province of Namur). In the Netherlands, the species is restricted to the Province of Limburg (HIGLER, 2008).

Of the 10 species that are still considered as regionally extinct in Flanders (including the Brussels-Capital Region), four belong to the genus *Limnephilus*: *Limnephilus bipunctatus* Curtis, 1834 (last

found in 1918), *Limnephilus fuscicornis* Rambur, 1842 (last reported in 1888), *Limnephilus nigriceps* (Zetterstedt, 1840) (last collected in 1924) and *Limnephilus politus* McLachlan, 1865 (last observed in 1947). Hopefully, also these species will be rediscovered in Flanders. To observe these species, light trapping near stagnant waters or marshes is recommended. The two former species hold a summer diapause and are most active in spring and autumn. The latter two species are most active in October and *L. nigriceps* is even still active in November.

Acknowledgements

The *L. ignavus* specimen found in Auderghem and presented in this paper is an output of the project 'Objectif 1000'. This project deals with an inventory of the insects of the 'Jardin botanique Jean Massart' sponsored by the Brussels Institute for the Environment (now called Brussels Environment). Therefore, we thank especially Mrs. Céline Fremault, Brussels Minister for the Environment, Mr. Olivier Beck (project manager) and Mr. Guy Rotsaert (permits). We are also indebted to the staff of the botanical garden Jean Massart, especially Mr. Thierry Bruffaerts (responsible for Brussels Environment for the site) and Mr. Jean Vermander (Free University of Brussels) for the help and enthusiasm they placed in the project.

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