

The peacock fly *Callopistromyia annulipes* (Macquart, 1855): a long expected new addition to the Belgian fauna (Diptera: Ulidiidae)

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Abstract

We present the discovery of the peacock fly *Callopistromyia annulipes* (Macquart, 1855) in Belgium. This fly belongs to the Ulidiidae family, which are rarely studied in Belgium. This species had originally a Nearctic distribution but was discovered in several European countries starting from 2008. We describe in this article the first finding of *C. annulipes* in Belgium.

Keywords: Ulidiidae, *Callopistromyia annulipes*, peacock fly, Belgian fauna

Samenvatting

In dit artikel beschrijven we de eerste vondst van de pauwvlieg *Callopistromyia annulipes* (Macquart, 1855) in België. Deze soort behoort tot de Ulidiidae familie, die in België maar zelden bestudeerd word. Hoewel deze soort oorspronkelijk in Noord-Amerika voorkomt, wordt ze sinds 2008 ook in verschillende Europese landen aangetroffen. De pauwvlieg is dan ook een langverwachte nieuwkomer op de Belgische lijst van de familie Ulidiidae.

Résumé

Nous présentons *Callopistromyia annulipes* (Macquart, 1855) découverte pour la première fois en Belgique. Cette espèce appartient aux Ulidiidae, famille peu étudiée en Belgique. Sa distribution n'était connue que de la région néarctique, mais depuis 2008 elle a été rapportée de plusieurs pays européens. *C. annulipes* est ajouté à la liste des Ulidiidae de Belgique.

Introduction

The dipteran family Tephritidae is rather well studied because of a Dutch identification key (SMIT, 2010) and their beautiful wing patterns. Nevertheless, other families like Ulidiidae are often confused with Tephritidae. They are also rather small and can have attractive wing patterns as well. Ulidiidae (formerly also known as Otitidae) are only occasionally studied in Belgium (GOSSERIES, 1991), but received recently more attention which led to the discovery of several new species such as *Homalocephala biumbrata* (BAUGNÉE & BISTEAU, 2014) and *Tetanops sintenisi* (MORTELMANS *et al.*, 2012).

Some species like *Seioptera vibrans* have almost no wing pattern at all, and others like *Otites* sp and *Melieria* sp have wings with few bands or dots. Contrastingly, *Callopistromyia annulipes* has wings which are almost completely filled with dark dots (Fig. 1). Besides its remarkable wing pattern, *C. annulipes* can be recognised by the spreading of the wings. This behaviour lead to the English name 'peacock fly'.

This fly originates from North America, but was reported in 2008 from Germany (MERZ & VAN GYSEGHEM, 2008) and Switzerland (MERZ 2008). Later on, several observations were made from other European countries but Belgium was a blind spot (KORNEYEV *et al.*, 2014). Therefore, it was expected that this species could be found in Belgium.

Material and methods

The first author recognised a photo of a peacock fly on the waarnemingen.be platform (06.VIII.2014, Val Saint-Lambert, Seraing (Belgium), Lambert 1972: 50.606 - 5.495, leg. C. Farinelle, <http://waarnemingen.be/waarneming/view/87001423>). Later on, another observation was made by J. Menten on 15.X.2016 in Lommel (51.220 - 5.266, <https://waarnemingen.be/waarneming/view/132518202>). On the Val Saint-Lambert site, this species was also found on 17.V.2017 (leg. C. Farinelle, <https://waarnemingen.be/waarneming/view/139674217>).

Results and discussion

The peacock fly was observed in the Netherlands for the first time in 2011 (SMIT & HAMERS, 2011), after invading several European countries. Several of these Dutch observations were made near the Belgian border. Consequently, it was just a matter of time before this species was observed in Belgium. In August 2014 the first observation was made nearby Liège, followed by another observation in Lommel in 2016. Both locations are well separated which indicates that this species is not incidental and thus can be added to the Belgian checklist. The observation in Lommel was made near the border of Belgium and the Netherlands, near the Dutch reports of this species (SMIT & HAMERS, 2011). This might indicate that the peacock fly is slowly expanding towards the West of Europe. It is a saprophytic species, reported from boxelder (*Acer negundo*), *Populus deltoids* and *Robinia pseudoacacia* (KAMENEVA & KORNEYEV, 2007). The latter is a common tree in Europe, although it originates from North America just like the peacock fly.

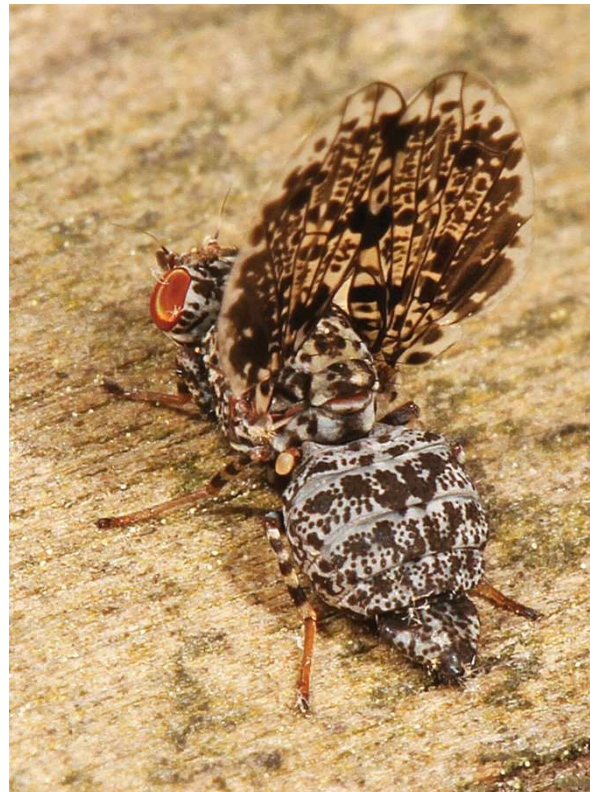


Fig. 1. *Callopistromyia annulipes* (Macquart, 1855) from Val Saint-Lambert, Belgium (leg. C. Farinelle, 17.V.2017).

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