



## ***Peripsocus milleri* (Tillyard, 1923) new to the Grand Duchy of Luxembourg (Psocoptera: Peripsocidae)**

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### **Abstract**

*Peripsocus milleri* (Tillyard, 1923) was observed for the first time in the Grand Duchy of Luxembourg. On 3.XI.2018, hundreds were found in the city of Luxembourg under bark of Plane.

**Keywords:** barkflies, faunistics, *Platanus* × *hispanica*.

### **Samenvatting**

*Peripsocus milleri* (Tillyard, 1923) werd voor het eerst in het Groothertogdom Luxemburg waargenomen. Op 3.XI.2018 werden in de stad Luxemburg honderden exemplaren gevonden onder schors van Plataan.

### **Résumé**

*Peripsocus milleri* (Tillyard, 1923) a été observé pour la première fois au Grand-Duché de Luxembourg. Le 3.XI.2018, des centaines de spécimens ont été trouvés dans la ville de Luxembourg sous l'écorce de Platane à feuilles d'érable.

### **Introduction**

Psocoptera or barkflies are a small order of insects, which are closely related to lice (Phthiraptera). Unlike lice, barkflies are no parasites of mammals and birds, but some species can be found in their nests. LIENHARD (1998) listed 66 species of Psocoptera for the Grand Duchy of Luxembourg. Since then, *Lachesilla bernardi* Badonnel 1938 and *Pseudopsocus fusciceps* (Reuter 1893) (SCHNEIDER, 1999), *Stenopsocus lachlani* Kolbe 1880 (SCHNEIDER & CARRIÈRES, 2008), *Ectopsocus petersi* Smithers 1978 (SCHNEIDER, 2010), *Prionoglaris stygia* Enderlein 1909 (SCHNEIDER & WEBER, 2013), *Valenzuela corsicus* (Kolbe 1882) (LOCK & VAN BUTSEL, 2017) and *Hyalopsocus morio* (LOCK & VAN BUTSEL, 2018) were added. Here, also *Peripsocus milleri* (Tillyard, 1923) is added to the fauna of the Grand Duchy of Luxembourg.

## Material and methods

*P. milleri* was sampled by looking under bark of Plane and was subsequently preserved in ethanol and identified using LIENHARD (1998). Several specimens were deposited to the entomological collection of the Royal Belgian Institute of Natural Sciences.

## Results

On 3.XI.2018, adults (Fig. 1) and juveniles (Fig. 2) of *Peripsocus milleri* (Tillyard, 1923) were found in the Avenue de la Liberté in the city of Luxemburg (latitude: 49°36'25.1"N; longitude: 6°07'40.9"E) under bark of Plane (*Platanus* × *hispanica*). Their occurrence was very aggregated: hundreds of specimens were found on only a few adjacent Planes, although at least a hundred trees were searched.

In Peripsocidae, the areola postica is absent, but unlike Ectopsocidae, the vertex is smooth instead of pilose and there are never black dots at the end of the veins near the wing margin. *P. milleri* can be identified by the forewings, that are darkened around the veins and gradually clearer towards the centre of the cells (Fig. 1). The species is macropterous and although in females the forewings can be slightly shortened, these still reach the tip of the abdomen.



Fig. 1. Female imago of *Peripsocus milleri* (Tillyard, 1923). © Koen Lock.

## Discussion

*P. milleri* is a species that lives on bark. In Europe, it has mainly an Atlantic distribution, but it also occurs in the Mediterranean region and outside Europe, it is also known from coastal regions in the Pacific (LIENHARD, 1998). *P. milleri* was expected to occur in the Grand Duchy of Luxembourg, because it had already been found in Belgium and France (LIENHARD, 1998). Although it has not yet been found in Germany, it can certainly be expected there as well.

An additional species that might also be expected in the Grand Duchy of Luxembourg under bark of Plane is *Embidopsocus enderleini* (Ribaga, 1905). Also *Mesopsocus fuscifrons* Meinander, 1966, *Pteroxanium kelloggi* (Ribaga, 1905) and *Trimerocaecilius becheti* Meinander, 1978, which were recently discovered in Belgium (LOCK *et al.*, 2015, LOCK & SOORS, 2018), might be expected on Plane. However, none of these species is restricted to Plane, it simply is a tree on which barkflies can be easily spotted after peeling of the bark.



Fig. 2. Larva of *Peripsocus milleri* (Tillyard, 1923). © Koen Lock.

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