

***Kolbia quisquiliarum* Bertkau, 1882, *Valenzuela corsicus* (Kolbe, 1882)
and *Valenzuela gynapterus* (Tetens, 1891) new to Belgium
(Psocoptera: Amphisocidae, Caeciliusidae)**

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Abstract

Three Psocoptera are reported here for the first time for the Belgian fauna: *Valenzuela corsicus* (Kolbe, 1882), *Valenzuela gynapterus* (Tetens, 1891) and *Kolbia quisquiliarum* Bertkau, 1882. The latter is the first representative of the family Amphisocidae in Belgium.

Keywords: barkfly, *Kolbia quisquiliarum*, *Valenzuela corsicus*, *Valenzuela gynapterus*

Samenvatting

Drie stofluizen of Psocoptera worden hier voor het eerst gemeld voor de Belgische fauna: *Valenzuela corsicus* (Kolbe, 1882), *Valenzuela gynapterus* (Tetens, 1891) en *Kolbia quisquiliarum* Bertkau, 1882. De laatste soort is de eerste vertegenwoordiger van de familie Amphisocidae in België.

Résumé

Trois Psocoptères sont rapportés pour la première fois pour la faune belge: *Valenzuela corsicus* (Kolbe, 1882), *Valenzuela gynapterus* (Tetens, 1891) et *Kolbia quisquiliarum* Bertkau, 1882. Cette dernière espèce est le premier représentant de la famille des Amphisocidae pour la Belgique.

Introduction

Psocoptera, with vernacular names booklice, barklice or barkflies, are a small order of insects that is not often investigated in Belgium. LIENHARD (1998) reported 72 species from Belgium. Recently, SCHNEIDER & CARRIÈRES (2008) added *Lachesilla bernardi* Badonnel, 1938 to the Belgian fauna and LOCK *et al.* (2015) reported *Pteroxanium kelloggi* (Ribaga, 1905) and *Mesopsocus fuscifrons* Meinander, 1966 for the first time. Here, also *Kolbia quisquiliarum* Bertkau, 1882, *Valenzuela corsicus* (Kolbe, 1882) and *Valenzuela gynapterus* (Tetens, 1891) are added to the Belgian fauna.

Material and methods

Psocoptera are mostly collected by sweeping or beating the vegetation, looking under bark or by extraction from leaf litter. Most species measure only a few millimetres, so careful attention is required. The Psocoptera occurring in Belgium can all be identified with the key of LIENHARD (1998), of which a PDF file is freely available (www.faunedefrance.org). However, identification remains difficult since all European species are treated in this book and in addition, microscopic characteristics are often used, although a lot of species can be easily identified in the field. Keys such as those provided by NEW (2005) and SVENSSON & HALL (2010) are easier to use, but they are incomplete for Belgium. However, we are preparing a new identification key for the species occurring in the Benelux (Lock *et al.*, in prep.), and a test version can be sent upon request. All three species reported here are represented in the collection of the Royal Belgian Institute of Natural Sciences (RBINS).



Fig. 1. Pinned male specimen of *Kolbia quisquiliarum* Bertkau, 1882 (photograph: Koen Lock).



Fig. 2. Habitus of *Valenzuela corsicus* (Kolbe, 1882) (photograph: Koen Lock).



Fig. 3. Habitus of a female *Valenzuela gynapterus* (Tetens, 1891) (photograph: Koen Lock).

Results

Kolbia quisquiliarum Bertkau, 1882 (Amphipsocidae) was found on 3.X.2015 along a forest edge in Arlon (Province of Luxembourg, 31UFR9906, 390 m a.s.l.). The species had previously also been collected in Postel (Province of Antwerp) by G. Severin on 20.VII.1922. This specimen was present in the dry collection of the Royal Belgian Institute of Natural Sciences, however, it was never identified until present. The macropterous males can be recognized by the long and stout hairs on the forewing, which occur at least on the radial vein in double rows (Fig. 1). In addition, the anterior margin of the forewing is gradually dilated towards the apex. Members of the family Philotarsidae also have double rows of hairs on the forewing, however, their wings are spotted. The usually micropterous females have distinctly setose wing rudiments. The colour varies from yellowish on the underside of the body to dark brown on the top of the head and the thorax.

Valenzuela corsicus (Kolbe, 1882) (Caeciliusidae) was also present in the collection of RBINS. In total, six specimens were present, each from a different location. Some material was wrongly identified, whereas other specimens were not yet identified. At the end of the nineteenth century, one was collected in Spa (Province of Liège) on 16.X by E. de Selys-Longchamps, which was wrongly identified as *Valenzuela piceus* (Kolbe, 1882) by G. Enderlein. Another was found in Meldert (Province of East Flanders) on 18.VIII.1920 by A. Ball, who wrongly identified the specimen as *Enderleinella obsoleta* (Stephens, 1836). M. Goetghebuer captured one in Knokke (Province of West Flanders) on 12.IX.1921. A. Ball found one in Vallée de Rabais near Virton (Province of Luxembourg) on 2.VIII.1925, which he wrongly identified as *V. piceus*. G. Severin found one in Saint-Hubert (Province of Luxembourg) on 6.IX.1926. Finally, A. Ball collected one in Moorsel (Province of East Flanders) on 2.X.1936. Both sexes are macropterous and just like in *Valenzuela burmeisteri* (Brauer, 1876), the postcubital vein of the forewing is setose. However, the head of *V. corsicus* is dark brown (Fig. 2), whereas it is yellowish in *V. burmeisteri*. All other Caeciliusidae lack setae on the postcubital vein.

Valenzuela gynapterus (Tetens, 1891) was found by sweeping bushes along the stream Ry de Belvaux near Florennes (Province of Namur, 31UFR2563, 160 m a.s.l.) on 12.VIII.2016. Males are macropterous, whereas females are micropterous, with the forewings hardly reaching the base of the abdomen (Fig. 3). Females reach about 3 mm and the antennae are slightly longer than the body. The abdomen is reddish or violet brown, while the head and the thorax are dark brown without markings. Males can be recognised by the antennae which are distinctly longer than the uniformly coloured smoky brown forewings, which measure 3.1–3.6 mm.

Discussion

All three species, that are reported here for the first time for the Belgian fauna, were expected (LOCK *et al.*, 2015). They were already observed in France, Germany and the Netherlands (LIENHARD, 1998) and *Kolbia quisquiliarum* Bertkau, 1882 and *Valenzuela gynapterus* (Tetens, 1891) were also found in Luxembourg (LIENHARD, 1998).

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