

The first record of net-winged midges (Diptera: Blephariceridae) from Hungary, and a corrected name in the genus *Liponeura*

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ABSTRACT: A single specimen of *Liponeura klapaleki* Vimmer, 1916 (= *L. vimmeri* Mannheims, 1954) taken at Gyöngyössolymos represents the first record of the family Blephariceridae from Hungary. The valid species name of the species is restored, *L. vimmeri* is suppressed as an unnecessary replacement name.

Introduction

The larvae of net-winged midges attach with six ventral suckers to smooth hard substrata, normally rocks, in fast flowing clean streams where they graze on biofilm and fine detrital covers on the rock. They also pupate in fast current. Pupae are cemented to the rocks by secretions produced by anterior abdominal segments. The long-legged adults require help from the current to exit from the pupae. They are able to fly immediately because their folded wings harden in the pupal case, before emergence. Wings therefore have many fine cracks forming a network in the wing membrane, between the proper veins. The vernacular name of the flies alludes to this.

The type of habitat required by net-winged midges is uncommon in Hungary, and the family was so far unknown from the country. The discovery of a single pupa of *Liponeura klapaleki* Vimmer, 1916 at Gyöngyössolymos represents the first record of this dipteran family from the country. The species is widespread in the northern Balkans, the Carpathians and north of the Alps, northwestward to the Harz Mts in Germany (ZWICK 2004). The central European habitats are typically in meta- to hyporhithral streams.

Liponeura klapaleki Vimmer, 1916

Liponeura klapaleki Vimmer, 1916, p. 4.

Liponeura klapaleki – KOMÁREK & VIMMER, 1934, p. 19.

Liponeura vimmeri Mannheims, 1954, p. 98. **Unnecessary replacement name.**

Material: 1 pupa, Hungary, Gyöngyössolymos [47°48' 08.47"N, 19° 56' 13.53" E], Cserkő-bánya, Nagy-patak, 21.4.2007, sen. Kovács, T., Kovács, T. Kept in the Mátra Museum, Gyöngyös.

The male is easily recognized by its genitalia (see KOMÁREK & VIMMER 1934, MANNHEIMS 1954). Among the three central European *Liponeura* species with obliquely erect pupal gills (not procumbent, as in *L. brevirostris* Loew) that have no granules above the middle of the cephalic sclerite (which *L. cinerascens* Loew s.l. has), *L. klapaleki* stands out by the very

strong and blackish mesothoracic granules extending forward of the incomplete suture between pro- and mesothorax. Its gills converge strongly and are curved, their tips often meet medially. This condition rarely occurs in *L. cordata* Vimmer (mesothorax shining like polished, no dark granules) and *L. decipiens* Bezzi which has a semi-matt, silky thorax with fine granules barely contrasting with the colour of the underground.

The Hungarian species was for some time known by the name *L. vimmeri*. Unfortunately, in the catalogue of Palaearctic Diptera (ZWICK 1992) I followed MANNHEIMS' reasoning (1954). However, correct nomenclature needs to be restored and priority respected. The case is confused because types were originally not designated, nor did subsequent authors designate lectotypes to stabilize the use of names. Today, syntypes are no longer available (ZWICK 1992).

The number of denticles on tarsal claws was thought to be a good character to distinguish species of *Liponeura*, until MANNHEIMS (1935) proved the contrary. VIMMER (1916) named two species of *Liponeura* from the same locality, the stream Vladajska reka at Knjazevo, a suburb of Sofia (name of stream after KOMÁREK & VIMMER 1934). They differed in the number of tarsal claw denticles. Mainly, however, *L. komareki*¹ was unique in having a dark tip of wing, while *L. klapaleki* which was described from pharate specimens dissected out of pupae has clear wings, as usual. VIMMER regarded all of the pharate specimens with clear wings as conspecific but was mistaken. The sexes described as *L. klapaleki* were later (KOMÁREK & VIMMER 1934) recognised to be not conspecific. The presumed male of *L. klapaleki* was in fact the male of *L. komareki*. The mistake occurred because the dark wing pigment is not yet developed in pharate specimens. The error was corrected by KOMÁREK & VIMMER (1934) who described the males of both species and illustrated their distinctive genitalia. KOMÁREK & VIMMER (1934) tied the names to the distinctly different females involved, and corrected or added, respectively, the descriptions of the males. They acted as first revisers in the sense of Article 24 of the International Code of Zoological Nomenclature, their decision is to be respected.

The doubtful assignment of a third male, the distinctly different *L. buresi* Komárek & Vimmer, 1934 to *L. klapaleki* by KOMÁREK (1932) confused the case further but has no bearing on nomenclature.

The conclusions and actions of MANNHEIMS (1954) differ from those of KOMÁREK & VIMMER (1934) and are invalid. MANNHEIMS regarded *L. klapaleki* as a junior synonym of *L. komareki*, as though the male had been the type specimen proper, and as though the female erroneously ascribed to it had no name. When KOMÁREK & VIMMER (1934) described the male which was really conspecific with that clear-winged female they were right in using the existing name, *L. klapaleki* Vimmer, 1916. MANNHEIMS, however, acted as though they had proposed a new species, and in doing so had created a homonym. MANNHEIMS therefore proposed a new name, *L. vimmeri*. Clearly, this is an unnecessary replacement name which is herewith sunk and suppressed.

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¹ The species has nothing in common with *L. cinerascens komareki* Bischoff, 1928 which is a primary junior homonym of *L. komareki* Vimmer, 1916 and not an available name (ZWICK 1992).

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