

## ***Hydropsyche botosaneanui* Marinkovic-Gospodnetic, 1966 new to Belgium (Trichoptera: Hydropsychidae)**

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### **Abstract**

On 20.V.2016, *Hydropsyche botosaneanui* Marinkovic-Gospodnetic, 1966 was observed for the first time in Belgium. Four females were attracted to light along the river Lomme near Mirwart (province Luxembourg).

**Keywords:** *Hydropsyche botosaneanui*, Hydropsychidae, river Lomme.

### **Samenvatting**

Op 20.V.2016 werd *Hydropsyche botosaneanui* Marinkovic-Gospodnetic, 1966 voor het eerst waargenomen in België. Vier vrouwtjes kwamen af op licht langs de Lomme bij Mirwart (provincie Luxemburg).

### **Résumé**

Le 20.V.2016, *Hydropsyche botosaneanui* Marinkovic-Gospodnetic, 1966 a été observé pour la première fois en Belgique. Quatre femelles ont été capturées au piège lumineux le long de la Lomme près de Mirwart (province de Luxembourg).

### **Introduction**

Hydropsychidae are one of the most diverse Trichoptera families worldwide and *Hydropsyche* is one of its largest genera. *Hydropsyche* larvae do not build a case, but they spin a net of fine silk, which they use to catch algae, detritus and smaller invertebrates. Due to this strategy of food collection, they require flowing water. They can readily be recognised by the branched gills along the ventral side of the abdomen. Adults are characterised by the thin antennae, the truncated wings with five apical forks, the spur formula of 244 and the absence of ocelli. *Hydropsyche* species are quite big, but most adults can only be identified by inspecting the genitalia. Larvae are frequently encountered during water quality monitoring, while adults are primarily nocturnal and are most easily observed when they come to light. Recently, *Hydropsyche incognita* Pitsch, 1993 could still be added to the Belgian fauna (LOCK & GOETHALS, 2012) and now *Hydropsyche botosaneanui* Marinkovic-Gospodnetic, 1966 is reported for the first time for the Belgian fauna.

### **Material and methods**

On 20.V.2016, caddisflies were attracted with an actinic lamp of 40W along the river Lomme near Mirwart (province Luxembourg, UTM: 31UFR6246, 270m asl). *H. botosaneanui* was identified using the identification key provided by NEU & TOBIAS (2004). One specimen has been deposited in the collection of the Royal Belgian Institute of Natural Sciences.



Fig. 1. Habitus of a female *Hydropsyche botosaneanui* Marinkovic-Gospodnetic, 1966 (Photograph: Koen Lock).

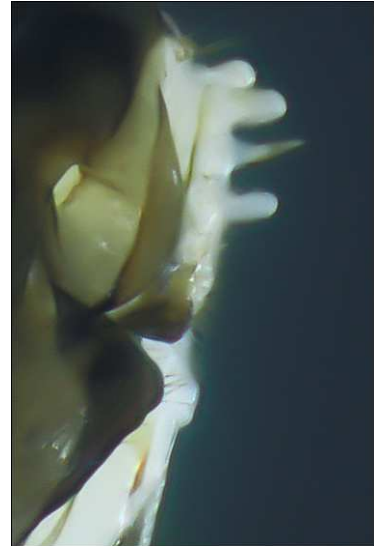


Fig. 2. Lateral view of the female genitalia of *Hydropsyche botosaneanui* Marinkovic-Gospodnetic, 1966 (Photograph: Koen Lock).

### Results

Four females of *Hydropsyche botosaneanui* Marinkovic-Gospodnetic, 1966 (Fig. 1) were attracted to light along the river Lomme near Mirwart. Species of the genus *Hydropsyche* look very similar and most of them can only be recognised by inspecting the genitalia. Especially females are hard to identify, however, *H. botosaneanui* is relatively easy to recognise based on the combination of a very long and narrow lobus dorsalis and a triangular lobus ventralis (Fig. 2).

Only one additional species was captured at the same site that night: *Ecclisopteryx guttulata* (Pictet, 1834), which was probably due to the open sky, leading to a relatively low temperature.

### Discussion

*H. botosaneanui* was expected to occur in Belgium (LOCK & GOETHALS, 2012), because it was already observed in the Grand Duchy of Luxembourg (SCHRANKEL *et al.*, 2008), in the German federal state Rheinland-Pfalz (ROBERT, 2001) and in Northern France in the department Aisne (COPPA, 2016). Due to its early flight period from May till June (NEU, personal communication), *H. botosaneanui* has probably been overlooked previously. Now, already 12 species of *Hydropsyche* have been found in Belgium, however, several other species could possibly still be expected. *Hydropsyche bulgaromanorum* Malicky, 1977 occurs in the Netherlands (Higler, 2008), in the Grand Duchy of Luxembourg (SCHRANKEL *et al.*, 2008), in the German federal states Rheinland-Pfalz and Nordrhein-Westfalen (ROBERT, 2001) and in Northern France in the department Ardennes (COPPA, 2016). *Hydropsyche contubernalis masovica* Malicky, 1977 has been found in the Netherlands (HIGLER, 2008). *Hydropsyche modesta* Navas, 1925 has been reported from Northern France in the departments Aisne and Ardennes (COPPA, 2016), however, NEU (personal communication) indicated that records mentioned from the Grand Duchy of Luxembourg (SCHRANKEL *et al.*, 2008) and the Netherlands (HIGLER, 2008) were probably erroneous. All these additional species are restricted to larger rivers and might therefore be expected in rivers such as the Meuse, the Semois, the Lesse and the Our.

### Acknowledgements

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## References

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