

## ***Hydropsyche bulgaromanorum* Malicky, 1977 new to Belgium (Trichoptera: Hydropsychidae)**

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### **Abstract**

On 16.VI.2018, *Hydropsyche bulgaromanorum* Malicky, 1977 was observed for the first time in Belgium. One female was attracted to light on a dry heathland in the nature reserve Balimheide near Lommel. It was probably a wandering specimen, since no suitable habitat is present nearby.

**Keywords:** Balimheide, Belgian fauna, caddisfly

### **Samenvatting**

Op 16.VI.2018 werd *Hydropsyche bulgaromanorum* Malicky, 1977 voor het eerst waargenomen in België. Eén vrouwtje kwam af op licht op droge heide in het natuurgebied Balimheide te Lommel. Het betreft waarschijnlijk een zwervend exemplaar, want er is geen geschikt habitat aanwezig in de buurt.

### **Résumé**

Le 16.VI.2018, *Hydropsyche bulgaromanorum* Malicky, 1977 a été observé pour la première fois en Belgique. Une femelle a été capturée dans un piège lumineux installé sur un site à bruyères sèches dans la réserve naturelle Balimheide à Lommel. C'était probablement un individu errant, parce qu'il n'y pas d'habitat approprié à proximité.

### **Introduction**

Although *Hydropsyche bulgaromanorum* Malicky, 1977 was previously reported from the River Scheldt in Destelbergen (STROOT, 1985), re-examination indicated that this actually concerned a male of the species *Hydropsyche contubernalis* MacLachlan, 1865. Now, *H. bulgaromanorum* can finally be added to the Belgian fauna. Recently, *Hydropsyche incognita* Pitsch, 1993 (LOCK & GOETHALS, 2012) and *Hydropsyche botosaneanui* Marinkovic-Gospodnetic, 1966 (LOCK, 2016) could already be added to the Belgian fauna. General information about Hydropsychidae was already given in a previous article in this journal (LOCK, 2016).

### **Material and methods**

On 16.VI.2018, more than ten light-traps were used to assess the biological diversity in the nature reserve Balimheide near Lommel (Province of Limburg, UTM: 31UFS5874, 50m a.s.l.), which was recently acquired by Natuurpunt. The main focus was on moths, but also some caddisflies and other insects were captured. *H. bulgaromanorum* was identified using the identification key provided by NEU & TOBIAS (2004). The captured specimen has been deposited to the collection of the Royal Belgian Institute of Natural Sciences (RBINS, I.G.: 33.782).

## Results

One female of *Hydropsyche bulgaromanorum* Malicky, 1977 was attracted to light on dry heathland in the nature reserve Balimheide near Lommel. 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. bulgaromanorum* is relatively easy to recognise based on the pointed, triangular lobus ventralis in combination with a broad lobus dorsalis (Fig. 1).

Despite the low temperature due to the open sky and the persistent drought of the preceding weeks, also several other caddisfly species were found: *Ecnomus tenellus* (Rambur, 1842), *Limnephilus auricula* Curtis, 1834, *Limnephilus lunatus* Curtis, 1834, *Limnephilus marmoratus* Curtis, 1834, *Leptocerus tineiformis* Curtis, 1834, *Mystacides longicornis* (Linnaeus, 1758), *Mystacides niger* (Linnaeus, 1758), *Oecetis lacustris* (Pictet, 1834) and *Trichostegia minor* (Curtis, 1834).

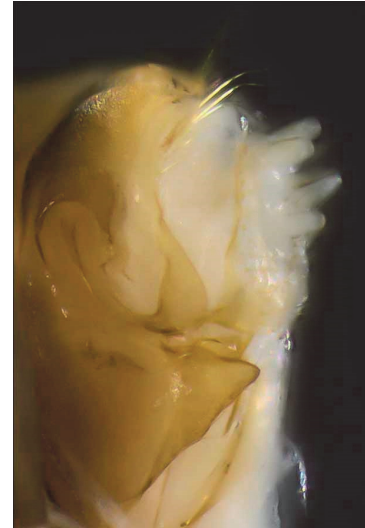


Fig. 1. Lateral view of the female genitalia of *Hydropsyche bulgaromanorum* Malicky, 1977 (Photo Koen Lock).

## Discussion

*Hydropsyche bulgaromanorum* was expected to occur in Belgium (LOCK & GOETHALS, 2012), because it was already observed 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 the department Ardennes in Northern France (COPPA, 2018). The observations closest to Lommel originate from the nature reserve Kaaistoep near Tilburg, but the River Waal is the closest known location where the species reproduces. HIGLER (2008) suggested that the species might be extending its distribution, which is confirmed by several recent additional observations. This expansion can probably be attributed to the improved water quality of some big rivers. Maybe the species will also colonise Belgian rivers, for example the River Meuse, where besides *Hydropsyche contubernalis* McLachlan, 1865 also *Hydropsyche exocellata* Dufour, 1841 has recently been found (LOCK, 2017).

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## References

- COPPA G., 2018. - Trichoptères : atlas de distribution des espèces. <http://www.opie-benthos.fr/opie/insecte.php> (consulted on 27.VI.2018).
- HIGLER L.W.G., 2008. - *Verspreidingsatlas van de Nederlandse kokerjuffers (Trichoptera)*. European Invertebrate Survey, Leiden, 248 pp.
- LOCK K., 2016. - *Hydropsyche botosaneanui* Marinkovic-Gospodnetic, 1966 new to Belgium. *Bulletin S.R.B.E./K.B.V.E.*, 152: 114–116.
- LOCK K., 2017. - *Hydropsyche exocellata* Dufour, 1841 voor het eerst in Vlaanderen. *De Digitale Kokerjuffer*, 20: 7–8.
- LOCK K. & GOETHALS P.L.M., 2012. - Updated checklist of the Belgian caddisflies (Trichoptera). *Bulletin S.R.B.E./K.B.V.E.*, 148: 27–32.
- NEU P. & TOBIAS W., 2004. - Die Bestimmung der in Deutschland vorkommenden Hydropsychidae (Insecta: Trichoptera). *Lauterbornia*, 51: 1–68.
- ROBERT B., 2001. - Verzeichnis der Köcherfliegen (Trichoptera) Deutschlands. *Entomofauna Germanica*, 5: 107–151.
- SCHRANKEL I., NEU P., DOHET A. & SCHOOS F., 2008. - Checklist of the Trichoptera of the Grand Duchy of Luxembourg - First revision. *Ferrantia*, 55: 89–92.
- STROOT P., 1985. - *Actualisation du catalogue des Trichoptères de Belgique*. Société royale belge d'Entomologie, Bruxelles, 61 pp.