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# Moth Flies (Diptera: Psychodidae) of the Moravskoslezské Beskydy Mts and Podbeskydská pahorkatina Upland, Czech Republic, II.

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Moth Flies (Psychodidae: Diptera) of the Moravskoslezské Beskydy Mts and Podbeskydská pahorkatina Upland, Czech Republic, II. – Acta Mus. Siles. Sci. Natur., 68: 201-232, 2019.

**Abstract:** Here we present first records of three moth fly species in the Czech Republic (*Katamormia bezzii* Salamanna, 1983, *Panimerus goodi* Vaillant & Withers, 1992 and *Pneumia fonticola* (Szabó, 1960)), increasing the total number of Czech moth fly species to 179. *Katamormia bezzii* represents the first finding outside of Italy, while *P. goodi* is only the second record outside of its type locality (Ireland), as is *Peripsychoda zbytka* Ježek, 2004 (Bohemia or.) and *Pneumia kabelaki* Omelková & Ježek, 2012 (Bílé Karpaty PLA). *Jungiella* (*Psychocha*) *janiki* Omelková & Ježek, 2017 has only been found at five sites (incl. the type locality) in the Bílé Karpaty Mts so far. The current number of species from the northwest part of the Czech Carpathians now totals 116. Altogether, 32 species were included in the national Red List of threatened invertebrates (Ježek 2005), with 23 species categorised as 'nationally scarce'. Maximum alpha diversity was 61 species (71 as the sum of two seasons) at SKM OR 1 in the Skalická Morávka National Nature Monument (NNM), with maximum beta diversity also recorded at the Skalická Morávka NNM, with 82 species from three localities.

**Keywords:** Psychodidae, faunistics, new records, threatened species, Carpathians, Moravskoslezské Beskydy Mts, Podbeskydská pahorkatina Upland, Silesia, Moravia, Czech Republic

## Introduction

Members of the family Psychodidae (moth flies) are found in a wide range of habitats, with Sycoracinae larvae, for example, occurring in aquatic mosses or leaf litter, while larvae of Trichomyinae are found in decaying wood. Most adult Psychodinae taxa are associated with marginal freshwater habitats, including phytotelmata and water-logged soils, and are generally detritivores, feeding on fungal fruiting bodies, compost, carrion or vertebrate dung. While some species have a single generation in a year, others may have multiple generations.

Taxonomically, moth flys are a very demanding and problematic group of nematocerous Diptera. What is more, in most cases, published keys are only applicable to males. Nevertheless, around 500 species are currently recognised in Europe (Wagner 1990), with 176 species occurring in the Czech Republic (Kroča & Ježek 2015, Omelková & Ježek 2017). In our previous research on moth flies (Kroča & Ježek 2015), we produced a list of psychodid fly species from the Moravskoslezské Beskydy Mts and Podbeskydská pakorkatina Upland documenting 84 species of 36 genera from eight localities. Based on new research, we have now been able to increase the species richness for the above-mentioned regions to 116 species of 42 genera from 29 sites.

## Study area, material and methods

Between 2007 and 2017, we monitored a total of 66 sites in the Moravskosleszské Beskydy Mts and the Podbeskydská pahorkatina Upland (sub-montane part of the Morávka river basin only) for the occurence of adult aquatic insects (Diptera, Plecoptera, Trichoptera etc.). This study is based on 29 localities, including eight sites mentioned previously in Kroča & Ježek (2015), i.e. three sites (SKM OR 1 – 3) on cutoff streams of the River Morávka in the Skalická Morávka NNM, two sites (S 1 and S 2) in the Salajka NNR and three sites (K 1 – 3) along the Kněhyňka stream (note that, while sites SKM OR 1 and SKM OR 2 were monitored in both 2009 and 2011, sampling at the SKM OR 2 site was limited to 2009 due to a damaged trap). A relatively large number of sites (13) were situated in small-scale specially protected areas, including the Zimný potok NR (2), Kršle NR (1), Skalická


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Morávka NNM (4), Kamenec NM (3), Salajka NNR (2) and Kněhyně - Čertův mlýn NNR (1). All the mountain and highland sites occur within the Beskydy PLA. For further details on the full list of sampling sites, see the section "List of collection sites" below. All localities are supplemented by grid references based on Zelený (1972) and Pruner & Míka (1996).

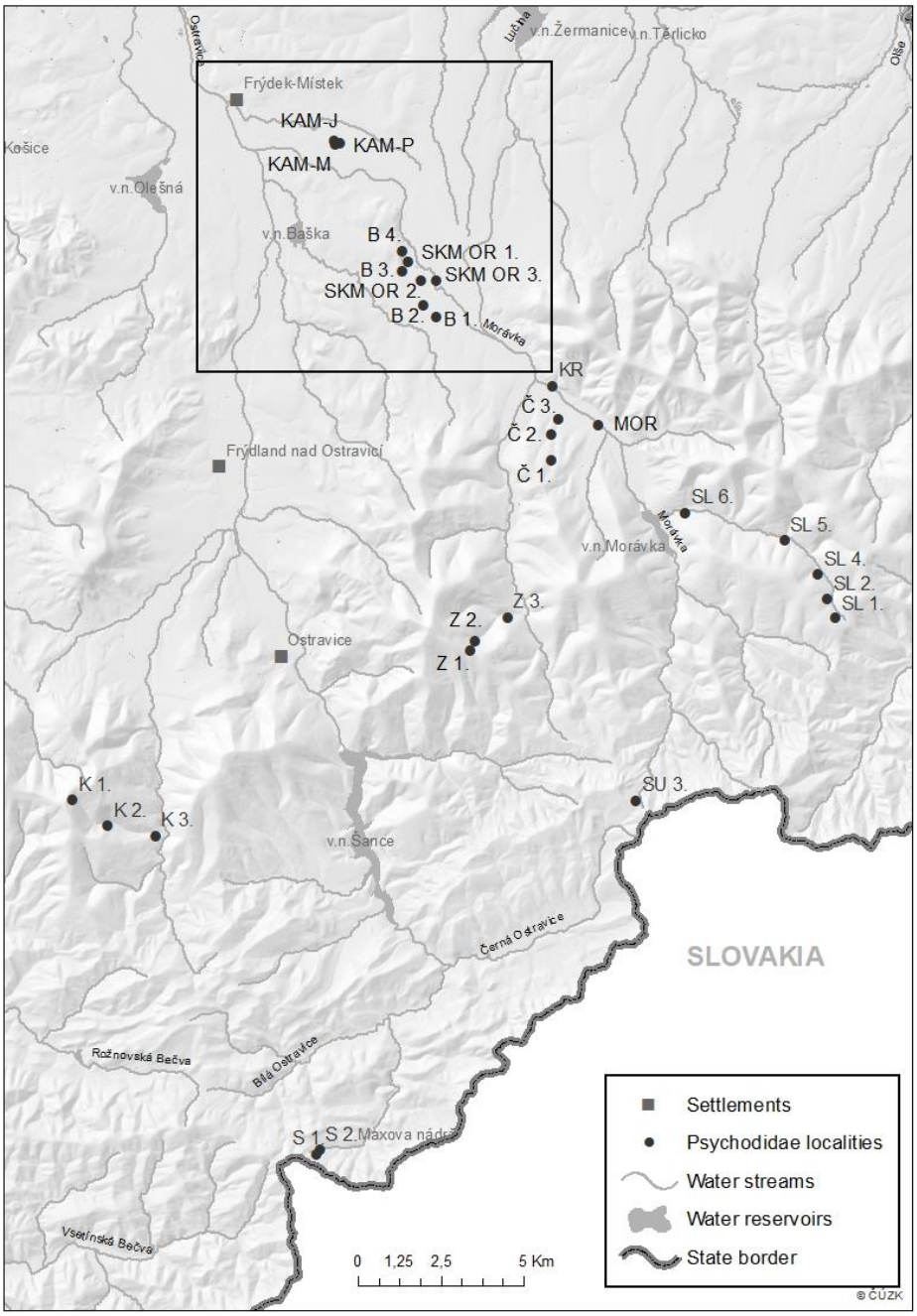



**Fig 1:** Map of the study area, with survey sites in the area of interest marked by the box. Note that sites S1 and S2, and KAM-J, KAM-M and KAM-P overlap at this scale (prepared by Lucie Vysloužilová).

The material was collected using Malaise traps (Barták's type) installed from March/April to October/December (depending on meteorological conditions) and emptied every 1-5 weeks. Captured moth flies were preserved in 70% ethanol in the field and deposited in the laboratory, after which selected specimens were mounted on Canada balsam slides by the second author (all material J. Kroča leg. and J. Ježek det.). All slides were numbered (Inv. No. 21614-21961, 22054-22479, 22623-23268, 23346-24164, 24266-24843; total 2812 slides) and the material deposited in the National Museum (Natural History Museum), Prague, Czech Republic (NMPC). The nomenclature used throughout mostly follows that of Ježek (2009a), Kvifte (2010, 2014) and Omelková & Ježek (2012a,b,c, 2017).

**Explanation of terms used in the text:**
Mountain – northern part of the Moravskoslezské Beskydy Mts, with high slopes and deep valleys.
Highland – lower slopes with slightly rugged relief in the southern part of the Moravskoslezské Beskydy Mts and mountain foothills along the northern edge of the mountain range.
Upland – valley floor with river floodplain in the sub-montane part of the River Morávka basin.
Spring brook – a small stream flowing from a spring with no tributaries.
Brooklet – a small stream with tributaries, usually up to 50 cm wide.
Brook – stream up to 2 metres wide.
River – flow with a width greater than 2 metres.
Cutoff stream – river side arm with no connection to the river at its upper part (see Kroča & Ježek 2015).
Alpha diversity (α-diversity) species richness at one locality.
Beta diversity (β-diversity) a representation of regional rather than local species diversity, obtained by combining data for all relevant alpha diversity sites, e.g. β-diversity of cutoff streams in the area of a braided river (Skalická Morávka NNP) is the total species richness of sites SKM OR 1, SKM OR 2 and SKM OR 3; while β-diversity of the Slavíč montane river is the total species richness of all localities along its longitudinal profile.

**Abbrevations Used in the text:**
NM - Nature Monument, NNM – National Nature Monument, NNR – National Nature Reserve, NR - Nature Reserve, NP – National Park, PLA – Protected Landscape Area, UBR - UNESCO Biosphere Reserve; CR – critically endangered species, EN – endangered species, VU – vulnerable species (categories derived from the Red List of threatened invertebrates of the Czech Republic, Ježek 2005), NS – nationally scarce (newly recorded species, not assessed in the red list but very rare); NMPC - the collection of the Department of Entomology, National Museum in Prague, Inv. No. - Inventory Slide Number for the family Psychodidae (Diptera).

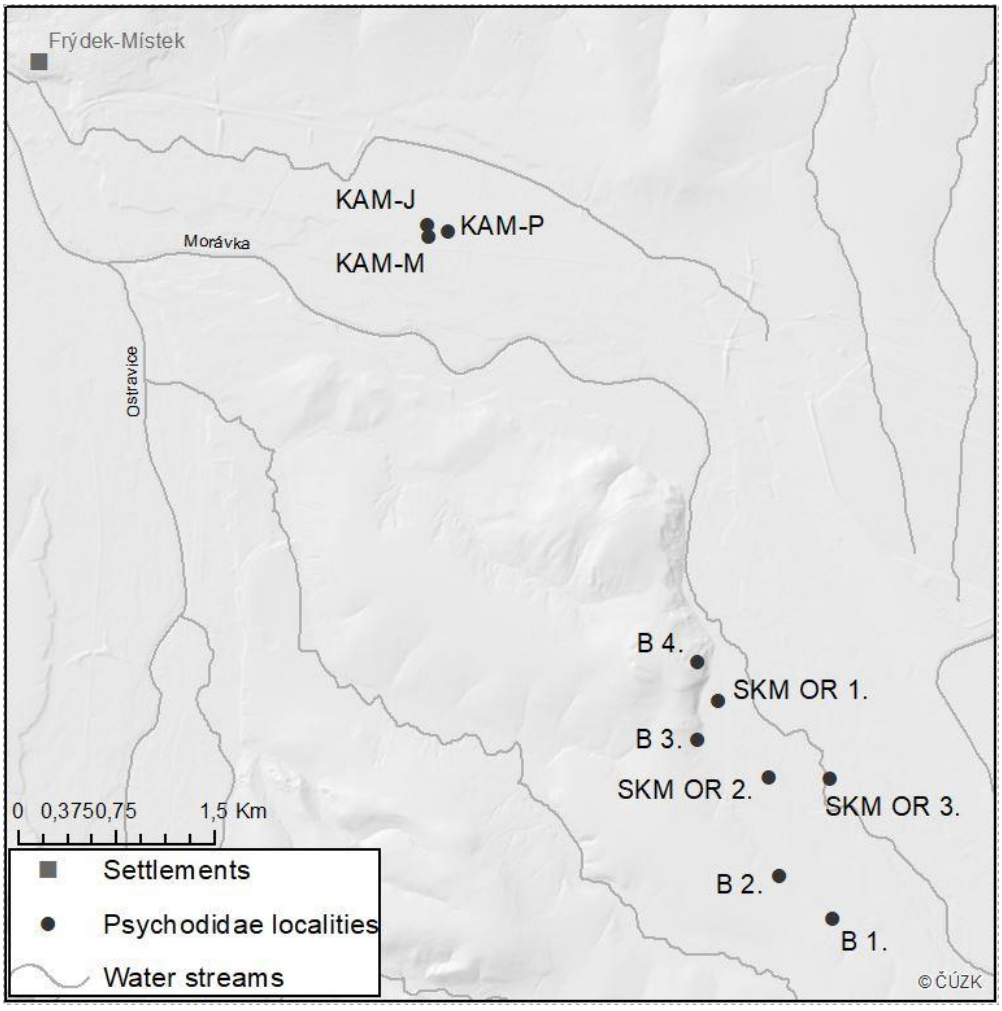



**Fig 2:** Localities from the Skalická Morávka NNM, Bahno brook and Kamenec NM (all Podbeskydská pahorkatina Upland), as indicated by the smaller scale box in Fig. 1 (prepared by Lucie Vysloužilová).

## List of collection sites

**Description**: Model description of locality: name of the locality (code), morphology, landscape and stream type. Vegetation by Chytrý *et al.* (2001). Geomorphological regionalisation by Demek & Mackovčín (2006): geomorphological unit /subunit. Coordinates; altitude; grid mapping field [*sensu* Zelený (1972), Pruner & Míka (1996)]. PLA or not, small-scale specially protected area or not. (Figure).

Zimný potok brook 1 (Z 1), montane high slope springbrook. Acidophilous beech forest. Moravskoslezské Beskydy Mts / Lysohorská hornatina (northeastern slope of the Lysá hora Mt.). 49° 32' 29"N 18° 28' 1"E; 967 m a.s.l.; 6476. Beskydy PLA, Zimný potok NR. (Fig. 3)

Zimný potok brook 2 (Z 2), montane high slope brooklet. Acidophilous beech forest. Moravskoslezské Beskydy Mts / Lysohorská hornatina (northeastern slope of the Lysá hora Mt.). 49° 32' 39"N 18° 28' 8"E; 802 m a.s.l.; 6476. Beskydy PLA, Zimný potok NR.

Zimný potok brook 3 (Z 3), montane brook. Forest plantations of allochtonous coniferous trees (dominant *Picea abies*). Moravskoslezské Beskydy Mts / Lysohorská hornatina (northeastern slope of the Lysá hora Mt.). 49° 33' 5"N 18° 28' 53"E; 614 m a.s.l.; 6476. Beskydy PLA, without special protection.

Sulov 3 (SU 3), highland brooklet – River Morávka. Forest plantations of allochtonous coniferous trees (dominant *Picea abies*). Moravskoslezské Beskydy Mts / Lysohorská hornatina. 49° 30' 16"N 18° 32' 29"E; 795 m a.s.l.; 6477. Beskydy PLA, without special protection. (Fig. 9)

Slavíč 1 (SL 1), highland brooklet – River Slavíč. Forest plantations of allochtonous coniferous trees (dominant *Picea abies*). Moravskoslezské Beskydy Mts / Lysohorská hornatina. 49° 33' 31"N 18° 37' 6"E; 873 m a.s.l.; 6477. Beskydy PLA, without special protection. (Fig. 4)

Slavíč 2 (SL 2), montane brook – River Slavíč. Forest plantations of allochtonous coniferous trees, line of *Fagus sylvatica* along the stream. Moravskoslezské Beskydy Mts / Lysohorská hornatina. 49° 33' 48"N 18° 36' 53"E; 795 m a.s.l.; 6477. Beskydy PLA, without special protection. (Fig. 5)

Slavíč 4 (SL 4), montane brook – River Slavíč. Acidophilous beech forest. Moravskoslezské Beskydy Mts / Lysohorská hornatina. 49° 34' 12"N 18° 36' 34"E; 703 m a.s.l.; 6477. Beskydy PLA, without special protection. (Fig. 6)

Slavíč 5 (SL 5), small montane river – River Slavíč. Acidophilous beech forest. Moravskoslezské Beskydy Mts / Lysohorská hornatina. 49° 34' 43"N 18° 35' 41"E; 617 m a.s.l.; 6477. Beskydy PLA, without special protection. (Fig. 7)

Slavíč 6 (SL 6), small montane river – River Slavíč, with narrow floodplain. Mountainous grey alder galleries with a line of *Petasites* sp. along the river. Moravskoslezské Beskydy Mts / Lysohorská hornatina. 49° 35' 1"N 18° 33' 7"E; 516 m a.s.l.; 6477. Beskydy PLA, without special protection. (Fig. 8)

Čuvný potok brook 1 (Č 1), mountainside springbrook, periodically drying with residual pools. Forest plantations of allochtonous coniferous trees (dominant *Picea abies*). Moravskoslezské Beskydy Mts / Lysohorská hornatina (foot of the Velký Travný Mt.). 49° 35' 42"N 18° 29' 40"E; 556 m a.s.l.; 6476. Beskydy PLA, without special protection.

Čuvný potok brook 2 (Č 2), mountainside brook, periodically drying with residual pools. Forest plantations of allochtonous coniferous trees (dominant *Picea abies*). Moravskoslezské Beskydy Mts / Lysohorská hornatina (foot of the Velký Travný Mt.). 49° 36' 7"N 18° 29' 36"E; 473 m a.s.l.; 6376. Beskydy PLA, without special protection.

Čuvný potok brook 3 (Č 3), mountainside brook, periodically drying with residual pools. Mesic *Arrhenatherum* meadows and line of trees along the stream (*Acer pseudoplatanus, Fraxinus excelsior, Tilia cordata*). Moravskoslezské Beskydy Mts / Lysohorská hornatina (foot of the Velký Travný Mt.). 49° 36' 23"N 18° 29' 45"E; 438 m a.s.l.; 6376. Beskydy PLA, without special protection.

Kršle (KR), unnamed mountainside springbrook, tributary of the River Morávka. Acidophilous beech forest. Moravskoslezské Beskydy Mts / Lysohorská hornatina, southwestern foot of the Čupel Mt.. 49° 36' 55"N 18° 30' 46"E; 453 m a.s.l.; 6376. Beskydy PLA, Kršle NR. (Fig. 10)

Morávka – cutoff stream (MOR). upland cutoff stream of the River Morávka. Ash-alder alluvial forests, significant proportion of mosses and liverworts in the aquatic environment. Podbeskydská pahorkatina Upland / Frenštátská brázda furrow. 49° 36' 20"N 18° 30' 46"E; 437 m a.s.l.; 6377. Beskydy PLA, without special protection. (Fig. 11)

Skalická Morávka – cutoff stream 1 (SKM OR 1). upland cutoff stream of braided River Morávka. Hardwood forest of lowland rivers. Podbeskydská pahorkatina Upland / Třinecká brázda furrow. 49° 38' 45"N 18° 25' 38"E; 353 m a.s.l.; 6376. Not situated in the PLA, Skalická Morávka NNM. (Fig. 7 in Kroča & Ježek 2015)

Skalická Morávka – cutoff stream 2 (SKM OR 2). upland cutoff stream of braided River Morávka. Hardwood forest of lowland rivers. Podbeskydská pahorkatina Upland / Třinecká brázda furrow. 49° 38' 27"N 18° 26' 0"E; 360 m a.s.l.; 6376. Not situated in the PLA, Skalická Morávka NNM.

Skalická Morávka – cutoff stream 3 (SKM OR 3). upland cutoff stream of braided River Morávka. Ash-alder alluvial forest. Podbeskydská pahorkatina Upland / Třinecká brázda furrow. 49° 38' 28"N 18° 26' 23"E; 362 m a.s.l.; 6376. Not situated in the PLA, Skalická Morávka NNM. (Fig. 8 in Kroča & Ježek 2015)

Bahno 1 (B 1), upland brooklet, periodically drying with residual pools. Extensively managed fields, line of trees and scrub along the stream - woody vegetation outside forest and human settlement. Podbeskydská pahorkatina Upland / Třinecká brázda furrow. 49° 37' 53"N 18° 26' 29"E; 375 m a.s.l.; 6376. Not situated in the PLA, without special protection.

Bahno 2 (B 2), upland brook. Extensively managed fields, line of trees and scrub along the stream - woody vegetation outside forest and human settlement. Podbeskydská pahorkatina Upland / Třinecká brázda furrow. 49° 38' 3"N 18° 26' 7"E; 370 m a.s.l.; 6376. Not situated in the PLA, without special protection.

Bahno 3 (B 3), upland brook. Extensively managed fields, line of trees along the stream - hardwood forest of lowland rivers. Podbeskydská pahorkatina Upland / Třinecká brázda furrow. 49° 38' 35"N 18° 25' 32"E; 358 m a.s.l.; 6376. Not situated in the PLA, without special protection.

Bahno 4 (B 3), upland brook / cutoff stream, located below the confluence of Bahno brook and cutoff stream (sites SKM OR 1. and SKM OR 2). Hardwood forest of lowland rivers. Podbeskydská pahorkatina Upland / Třinecká brázda furrow. 49° 38' 54"N 18° 25' 29"E; 348 m a.s.l.; 6376. Not situated in the PLA, Skalická Morávka NNM.

Kamenec – swamp (KAM-M), upland peat bog - reed vegetation, brooks and mesotrophic muddy substrata. Podbeskydská pahorkatina Upland / Třinecká brázda furrow. 49° 40' 34"N 18° 23' 34"E; 319 m a.s.l.; 6376. Not situated in the PLA, Kamenec NM. (Fig. 14)

Kamenec – small lake (KAM-J), upland peat pool with a smooth transition to transitional mires. Podbeskydská pahorkatina Upland / Třinecká brázda furrow. 49° 40' 37"N 18° 23' 32"E; 318 m a.s.l.; 6376. Not situated in the PLA, Kamenec NM. (Fig. 13)

Kamenec – brook (KAM-P), upland brooklet, periodically drying with residual pools. Polonian oak-hornbeam forests. Podbeskydská pahorkatina Upland / Třinecká brázda furrow. 49° 40' 35"N 18° 23' 40"E; 319 m a.s.l.; 6376. Not situated in the PLA, Kamenec NM. (Fig. 12)

Salajka 1 (S 1), highland springbrook - right tributary of the River Smradlava. Herb-rich beech forest. Moravskoslezské Beskydy Mts / Klokočovská hornatina. 49° 24' 4"N 18° 25' 14"E; 731 m a.s.l.; 6576. Beskydy PLA, Salajka NNR. (Fig. 4 in Kroča & Ježek 2015)

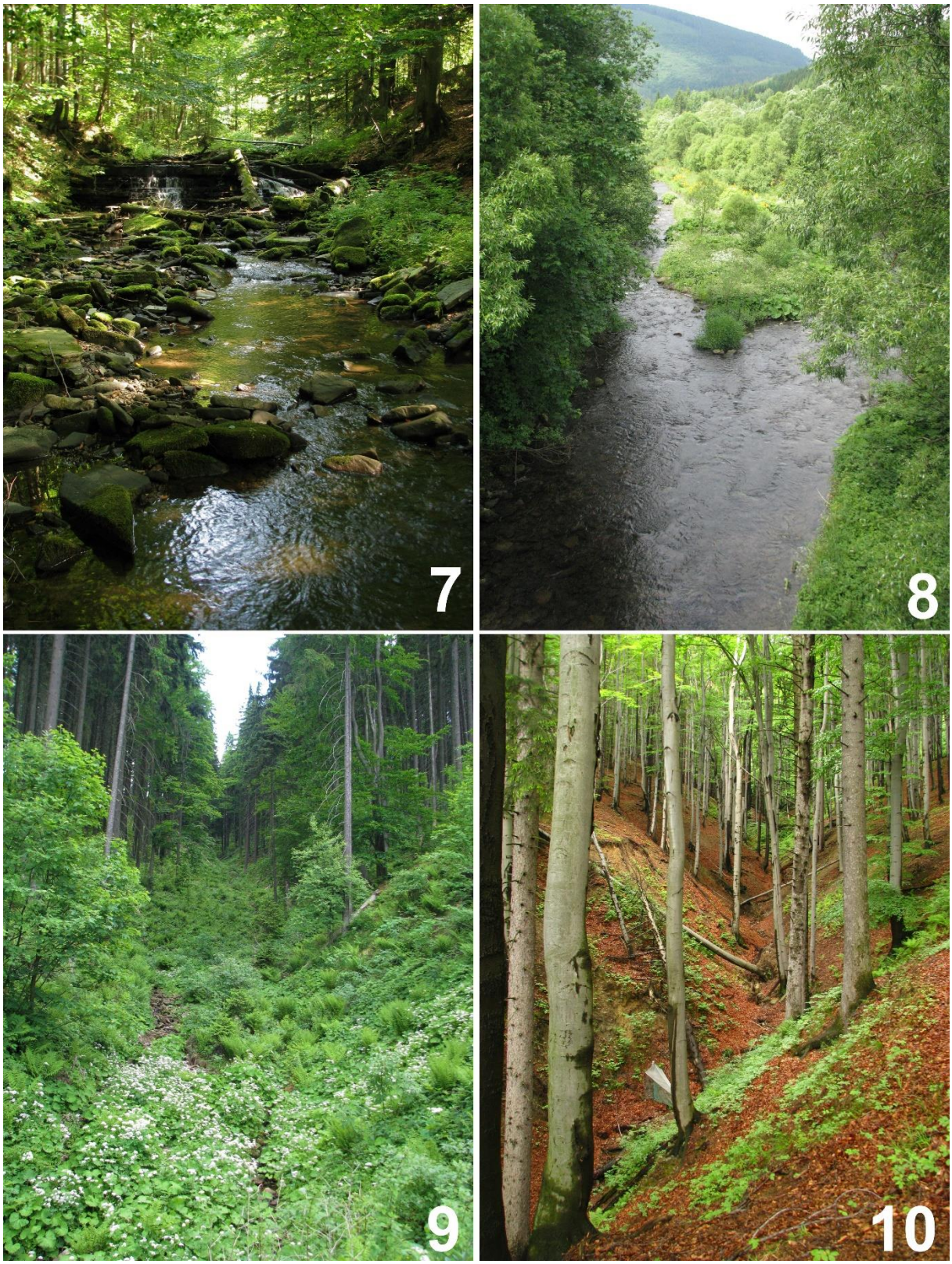
Salajka 2 (S 2), highland brook - River Smradlava. Herb-rich beech forest. Moravskoslezské Beskydy Mts / Klokočovská hornatina. 49° 24' 8"N 18° 25' 17"E; 712 m a.s.l.; 6576. Beskydy PLA, Salajka NNR. (Fig. 5 in Kroča & Ježek 2015)

Kněhyňka 1 (K 1), montane springbrook - Kněhyňka. Montane sycamore-beech forest. Moravskoslezské Beskydy Mts / Radhošťská hornatina. 49° 29' 30"N 18° 18' 22"E; 1036 m a.s.l.; 6575. Beskydy PLA, Kněhyně – Čertův mlýn NNR. (Fig. 2 in Kroča & Ježek 2015)

Kněhyňka 2 (K 2), montane brook - Kněhyňka. Forest plantations of allochtonous coniferous trees (*Picea abies*). Moravskoslezské Beskydy Mts / Radhošťská hornatina. 49° 29' 8"N 18° 19' 19"E; 731 m a.s.l.; 6575. Beskydy PLA, without special protection. (Fig. 3 in Kroča & Ježek 2015)

Kněhyňka 3 (K 3), montane brook - Kněhyňka. Forest plantations of allochtonous coniferous trees (*Picea abies*). Moravskoslezské Beskydy Mts / Radhošťská hornatina. 49° 29' 2"N 18° 20' 31"E; 607 m a.s.l.; 6576. Beskydy PLA, without special protection.


**Figs 3-6: 3** - Zimný potok brook 1 (Zimný potok NR; Beskydy PLA), photo by J. Kroča, 26 June 2008; **4** - Slavíč 1 (Beskydy PLA), photo by J. Kroča, 26 June 2008; **5** - Slavíč 2 (Beskydy PLA), photo by J. Kroča, 5 June 2008; **6** - Slavíč 4 (Beskydy PLA), photo by J. Kroča, 26 June 2008.




**Figs 7-10: 7** - Slavíč 5 (Beskydy PLA), photo by J. Kroča, 7 September 2009; **8** - Slavíč 6 (Beskydy PLA), photo by J. Kroča, 5 June 2008; **9** - Sulov 3 (Beskydy PLA), photo by J. Kroča, 3 June 2008; **10** - Kršle (Kršle NM, Beskydy PLA), photo by J. Kroča, 12 May 2009.


**Figs 11-14: 11** - Morávka – cutoff stream (Beskydy PLA), photo by J. Kroča, 9 May 2013; **12** - Kamenec – brook (Kamenec NM), photo by J. Kroča, 22 April 2016; **13** - Kamenec – small lake (Kamenec NM), photo by J. Kroča, 22 April 2016; **14** - Kamenec – swamp (Kamenec NM), photo by J. Kroča, 22 April 2016.

## Results

### LIST OF SPECIES

***Sycorax silacea* Holiday in Curtis, 1839**

Published records. Kroča & Ježek (2015): S 2
**Silesia:** KR: 12.v.–26.v.2009 (♂); KAM–P: 14.v.–12.vi.2016 (♂). **Moravia**: S 2: 12.v.–2.vi.2008 (♂).

European, locally abundant species. Inhabits a variety of forest streams. Notes on the area of interest: rare species of spring brooks and brooklets in highland and upland parts. Sites KR and KAM-P are periodic drying flows with residual pools.

***Sycorax similis* (Müller, 1927) (CR)**

**Silesia:** KAM–M: 21.v.–18.vi.2016 (♂).

Probably very rare European species, known from Britain (Withers 1986), Germany, Switzerland, Czech Republic (Ježek & Halgoš, 1987) and Romania. Notes on the area of interest: one of the rarest species, it occurs only in a single peat bog - upland part of the Morávka river basin. Critically endangered in the Czech Republic.

***Sycorax tonnoiri* Jung, 1954 (CR)**

**Silesia**: Z 1: 26.vi.–17.vii.2008 (♂); SU 3: 7.viii.–5.ix.2007 (♂); SL 1: 17.vii.–7.viii.2008 (♂).

Very rare European species. Distribution in the Czech Republic: Western Bohemia (Ježek *et al*. 2018); Orlické hory PLA (Ježek & Hájek 2007); Jeseníky PLA (Ježek 2003, 2006b). Notes on the area of interest: rare species, inhabits montane spring brooks and brooklets of the Morávka river basin. Critically endangered in the Czech Republic.

***Trichomyia urbica* Haliday in Curtis, 1839 (CR)**

**Silesia**: SKM OR 1: 12.vi.–14.vii.2009 (♂), 20.vi.–19.vii.2011 (♂); B 2: 23.vi.–9.vii.2012 (♂); B 3: 13.v.–27.vii.2012 (♂♀); KAM–P: 18.vi.-2.vii.2016 (♀).

Uncommon European species. Distribution in Czech Republic: Prague city (Ježek 1995), Vráž nr. Písek (Ježek *et al.* 2013), Western Bohemia (Ježek 1999, Ježek *et al*. 2018), Podyjí NP (Ježek 2003; Ježek *et al.* 2005), Pálava UBR (Ježek 1998, 2003), Bílé Karpaty PLA (Ježek & Omelková 2012). Larvae are xylophagous and occur on shaded slopes near springs and some other habitats with decaying organic matter. Notes on the area of interest: rare species occurring in the upland part of the Morávka river basin (brooks and cutoff streams). Critically endangered in the Czech Republic.

***Katamormia bezzii* Salamanna, 1983** (NS)

**Silesia**: SKM OR 1: 18.iv.–21.v.2011 (♂); SKM OR 3: 18.iv.–20.v.2011 (♂), 20.vi.–19.vii.2011 (♂).

Rare species, up until now known only from Italy (Ježek 1994). Notes on the area of interest: one of the rarest species collected in the upland part of the Morávka river basin (cutoff streams, braided river). New record for the Czech Republic, nationally scarce.

***Katamormia niesiolowskii* (Wagner, 1985) (NS)**

Published records. Kroča & Ježek (2015): SKM OR 3
**Silesia**: SKM OR 3: 20.vi.–19.vii.2011 (♂).

Rare species. Previously published as a new species for the Czech Republic at the same site (Kroča & Ježek 2015); not detected elsewhere. Notes on the area of interest: one of the rarest species, probably inhabits upland and cutoff streams in open landscapes, or slightly shaded by shrubs. Habitats with mats of aquatic bryophytes. Nationally scarce in the Czech Republic.

***Katamormia strobli* Ježek, 1986 (VU)**

Published records. Kroča & Ježek (2015): SKM OR 3
**Silesia**: SKM OR 3: 18.iv.–20.v.2011 (♂).

Environmental notes are similar to the species *K. niesiolowskii*. Comments on the area of interest: one of the rarest species, occurring only near cutoff streams (see Kroča & Ježek 2015). Vulnerable in the Czech Republic.

***Oomormia andrenipes* (Strobl, 1910) (CR)**

**Silesia**: Z 3: 26.vi.–17.vii.2008 (♂); SU 3: 15.v.–12.vi.2007 (♂); SL 2: 15.v.–5.vi.2008 (♂); SL 4: 15.v.–26.vi.2008 (♂); SL 5: 12.vi.–14.vii.2009 (♂); SL 6: 11.vi.–18.vi.2016 (♂).

Relatively rare European species. Occurrence in the Czech Republic: Prague (Ježek 1995) Jizerské hory PLA (Ježek *et al.* 2008) and Bílé Karpaty PLA (Ježek & Omelková 2007, 2012, Omelková *et al.* 2008). Habitats - spring areas and brooks of hills and mountains. Notes on the area of interest: rare species inhabiting habitats near montane brooks and rivers. Critically endangered in the Czech Republic.

***Mormia revisenda* (Eaton, 1893) (NS)**

Published records. Kroča & Ježek (2015): K 3.
**Silesia**: SL 4: 15.v.–26.vi.2008 (♂).

Very rare species, probably only European species. Preferred habitats: beech forests, with slope spring areas and swamps. Notes on the area of interest: one of the rarest species of montane beech wood brooks. Nationally scarce in the Czech Republic.

***Promormia eatoni* (Tonnoir, 1940) (EN)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3
**Silesia**: SU 3: 12.vi.–10.vii.2007 (♂); SL 6: 18.vi.–3.vii.2016 (♂); MOR: 21.v.–20.vi.2011 (♂); SKM OR 1: 26.v.–14.vii.2009 (♂).

Relatively rare European species. Published habitats: small forest streams, slope spring areas and wet pastures. Notes on the area of interest: rare species of montane brooklets, small rivers and cutoff upland streams. Endangered in the Czech Republic.

***Promormia silesiensis* Ježek, 1983 (CR)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 2; K 3.

**Silesia**: Z 3: 5.vi.–17.vii.2008 (♂); SU 3: 12.vi.–7.viii.2007 (♂); SL 2: 26.vi.–17.vii.2008 (♂); SL 6: 22.v.–3.vii.2016 (♂); ČV 1: 13.vi.–14.vii.2009 (♂); KR: 12.vi.–14.vii.2009 (♂); MOR: 21.v.–20.vi.2011 (♂); SKM OR 1: 26.v.–14.vii.2009 (♂); KAM–M: 21.v.–12.vi.2016 (♂); KAM–P: 15.iv.-22.iv.2016 (♂), 18.vi.–2.vii.2016 (♂). **Moravia:** S 2: 24.vi.–16.vii.2008 (♂).

Probably only European species, mostly at low abundances. Notes on the area of interest: collected at many natural sites, from uplands to mountains. Critically endangered in the Czech Republic.

***Taramormia caspersi* (Wagner, 1977)**

**Silesia**: SL 2: 5.vi.–26.vi.2008 (♂).

Very rare species, with limited area of distribution, published from Germany (only the male holotype is known) and the Czech Republic (Bílé Karpaty PLA – Ježek 2009b; Ježek & Omelková 2012). Notes on the area of interest: one of the rarest species of waterfalls and brooks of montane beech woods.

***Taramormia pulcherrima* (Wagner, 1979) (CR)**

**Silesia**: SKM OR 1: 20.vi.–19.vii.2011 (♂); B 4: 13.v.–23.vi.2012 (♂).

Rare Central European species (Germany, Austria). Distribution in the Czech Republic: environs of Prague (Ježek 1995), Bílé Karpaty PLA (Ježek 2009b, Ježek & Omelková 2012). Inhabits meadow spring areas, water seepages in beech forests and brooks. Notes on the area of interest: one of the rarest species, it occurs only in floodplain brooks and cutoff streams. Critically endangered in the Czech Republic.

***Yomormia furva* (Tonnoir, 1940)**

**Silesia:** ČV 3: 22.iv.–12.v.2009 (♂).

Widely distributed species known throughout Europe, penetrating from United Kingdom to Transcaucasia (Abkhazia), always at very low abundance. Distribution in the Czech Republic: Jeseníky PLA (Ježek 2006b), Bílé Karpaty PLA (Ježek 2006a, Omelková *et al.* 2008; Ježek & Omelková 2012). Inhabits wet erosive furrows, rills, and slope spring areas. Notes on the area of interest: one of the rarest species, known only from Čuvný potok 3 (drying brook with residual pools).

***Jungiella (Jungiella) hygrophila* Ježek, 1987**

Published records. Kroča & Ježek (2015): SKM OR 1.
**Silesia:** KAM–M: 21.v.–12.vi.2016 (♂).

European species (Belgium, Czech Republic, Poland, Slovakia, Ukraine; for new information see Ježek *et al.* 2017 and Ježek, Grootaert *et al.* 2018) occurring in shaded spring areas and brook floodplains. Notes on the area of interest: one of the rarest species, cutoff streams and peat bogs.

***Jungiella (Jungiella) soleata* (Walker, 1856)**

**Silesia**: SKM OR 1: 12.v.–26.v.2009 (♂).

Common European species. Registered in various habitats with decaying organic matter, from lowlands to mountains. Occurrence in the Czech Republic: Prague (Ježek 1995), Kokořínsko PLA (Ježek 2006c), Český Kras PLA (Ježek *et al.* 2014), Vráž nr. Písek (Ježek *et al.* 2013), Western Bohemia (Ježek 1999, Ježek *et al*. 2018), Jizerské hory PLA (Ježek *et al.* 2008), Podyjí NP (Ježek *et al.* 2005), Bílé Karpaty PLA (Ježek & Omelková 2012). Notes on the area of interest: published historically by Ježek 1987 from Bordovice, Frenštát pod Radhoštěm (both Moravskoslezské Beskydy Mts./ Podbeskydská pahorkatina Upland), Ostrava and Polanka nad Odrou (both Northern Outer Carpathian depressions). Currently very rare here, known only from a single locality (cutoff stream of the braided River Morávka).

***Jungiella* (*Psychocha*) *acuminata* (Szabó, 1960)**

Published records. Kroča & Ježek (2015): SKM OR 1.
**Silesia**: SKM OR 3: 20.vi.–19.vii.2011 (♂).

European species, occurring in habitats with decaying organic matter. Notes on the area of interest: one of the rarest species, only found in cutoff streams of the braided River Morávka.

***Jungiella* (*Psychocha*) *hassiaca* Wagner, 1993 (NS)**

**Silesia**: B 2: 13.v.–23.vi.2012 (♂).

Rare species known only from Germany (Hesse) and the Czech Republic. Distribution in Czech Republic: Blaník PLA, Český Kras PLA, České Švýcarsko NP (all Ježek 2009b), Podyjí NP (Ježek *et al.* 2005), Bílé Karpaty PLA

(Ježek & Omelková 2012). Notes on the area of interest: one of the rarest species, found only in the vicinity of a single brook (upland part). Nationally scarce in the Czech Republic.

***Jungiella* (*Psychocha*) *janiki* (Omelková & Ježek, 2017) (NS)**

**Silesia**: SKM OR 1: 12.vi.–14.vii.2009 (3 ♂).

Species known only from the Bílé Karpaty PLA (Omelková & Ježek 2017) so far – habitats: steep meadow spring areas, seepage water, forest headwaters, brooks. Notes on the area of interest: one of the rarest species, found only near a cutoff stream of the braided River Morávka. Nationally scarce in the Czech Republic.

***Jungiella* (*Psychocha*) *laminata* (Szabó, 1960) (CR)**

**Silesia**: SKM OR 1: 12.vi.–14.vii.2009 (♂).

Very rare Central European species (Czech Republic, Germany, Hungary, Serbia). Occurrence in the Czech Republic: Prague (Ježek 1995), Kokořínsko PLA (Ježek 2006c), Český Kras PLA (Ježek *et al.* 2014), Podyjí NP (Ježek *et al.* 2005), Bílé Karpaty PLA (Ježek & Omelková 2012). Preferred biotopes: habitats with sandy sediments. Notes on the area of interest: one of the rarest species, found only near the cutoff stream of the braided River Morávka. Critically endangered in the Czech Republic.

***Jungiella* (*Psychocha*) *procera* Krek, 1971**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2
**Silesia**: SKM OR 1: 12.v.–14.vii.2009 (♂); B 2: 23.vi.–9.vii.2012 (♂); B 3: 23.vi.–9.vii.2012 (♂); B 4: 13.v.–23.vi.2012 (♂); KAM–M: 22.iv.-14.v.2016 (♂); KAM–P: 15.iv.-22.iv.2016 (♂).

Relatively rare, locally abundant species. Previously collected in Bosnia and Herzegovina, Serbia and the Czech Republic (flood-plains of small brooks, swampy meadows, forest spring areas and treeless tufa-forming fens and ponds (from lowlands to hilly regions) (Omelková & Ježek 2012c, Kroča & Ježek 2015). Notes on the area of interest: relatively common species of sub-montane biotopes.

***Lepiseodina rothschildi* (Eaton, 1912) (NS)**

Published records. Kroča & Ježek (2015): SKM OR 2; K 1.
**Silesia**: B 2: 23.iv.–13.v.2012 (♂).

Rare European dendrolimnobiontic species. Notes on the area of interest: rare species, collected at various altitudes. Nationally scarce in the Czech Republic.

***Lepiseodina tristis* (Meigen, 1830) (CR)**

Published records. Kroča & Ježek (2015): SKM OR 2; SKM OR 3
**Silesia:** KR: 12.vi.–14.vii.2009 (♂); KAM–M: 30.vii.–13.viii.2016 (♂).

Rare European dendrolimnobiontic species. Notes on the area of interest: rare species from upland parts. Critically endangered in the Czech Republic.

***Panimerus denticulatus* Krek, 1971**

Published records. Kroča & Ježek (2015): SKM OR 2; SKM OR 3
**Silesia**: SL 6: 18.vi.–3.vii.2016 (♂); M – L: 21.v.–20.vi.2011 (♂); SKM OR 1: 26.v.–14.vii.2009 (♂); SKM OR 3: 20.vi.–19.vii.2011 (♂); B 1: 22.vi.–13.vii.2013 (♂); B 2: 23.vi.–9.vii.2012 (♂); B 3: 13.v.–9.vii.2012 (♂); KAM–M: 21.v.–30.vii.2016 (♂); KAM – J: 21.v.–15.vii.2016 (♂); KAM–P: 15.iv.–22.iv.2016 (♂), 18.vi.–2.vii.2016 (♂), 15.x.–30.x.2016 (♂).

Locally common and euryvalent European species inhabiting various types of aquatic biotope – springs, brooks, rivers, ponds, wet meadows and pastures from lowlands to mountains. Notes on the area of interest: common species from hilly biotopes. Evidently, two generations on site KAM–P; however, laboratory verification will be needed in future.

***Panimerus goodi* Vaillant & Withers, 1992 (NS)**

**Silesia:** KAM–M: 14.v.–21.v.2016 (♂).

Morphologically complicated species known only from the original description (Pollardstown Fen, Co. Kildare, Ireland). Type locality: alkaline peatland areas. Notes on the area of interest: one of the rarest species, found only in Kamenec NM (KAM-M) in wetland with brooklets, small pools, peat ponds and peat bogs. New faunistic record for the Czech Republic, nationally scarce.

***Panimerus maynei* (Tonnoir, 1920) (EN)**

**Silesia:** KAM–M: 21.v.–2.vii.2016 (♂).

Rare species known from England, Sweden (Withers 1986), Denmark, Germany, Belgium, France, Algeria and the Czech Republic - so far from the Western Bohemia only (Ježek 1999, Ježek *et al*. 2018). Notes on the area of interest: one of the rarest species, collected only from the Kamenec NM peat bog. Endangered in the Czech Republic.

***Panimerus notabilis* (Eaton, 1893)**

Published records. Kroča & Ježek (2015): SKM OR 1; S 2
**Silesia**: SKM OR 1: 12.v.–26.v.2009 (♂), 18.iv.–21.v.2011 (♂); B 1: 10.v.–12.vi.2013 (♂); B 2: 13.v.–23.vi.2012 (♂), 19.viii.–7.ix.2012 (♂); B 3: 13.v.–23.vi.2012 (♂); KAM–M: 14.v.–21.v.2016 (♂).

Common European species. Notes on the area of interest: quite rare species from upland parts.

***Parajungiella consors* (Eaton, 1893)**

**Silesia**: B 3: 13.v.–23.vi.2012 (♂); KAM–M: 14.v.–12.vi.2016 (♂), 15.vii.–30.vii.2016 (♂), 13.viii.–28.viii.2016 (♂); KAM–J: 21.v.–12.vi.2016 (♂).

Rare European species, distributed from United Kingdom to Denmark, Belgium, the Netherlands, Czech Republic and Slovakia. Published localities for the Czech Republic: Prague city (Ježek 1995), Vráž nr. Písek (Ježek *et al.* 2013), Western Bohemia (Ježek 1999, Ježek *et al*. 2018), Orlické hory PLA (Ježek & Hájek 2007) and Pálava BR (Ježek 1998). Notes on the area of interest: quite rare species in upland parts of the Morávka river basin, e.g. Kamenec NM and Bahno brook.

***Parajungiella ellisi* (Withers, 1987) (CR)**

Published records. Kroča & Ježek (2015): SKM OR 1.
**Silesia**: SL 6: 11.vi.–18.vi.2016 (♂); SKM OR 1: 12.v.–14.vii.2009 (♂); B 2: 23.vi.–9.vii.2012 (♂); KAM–M: 21.v.-12.vi.2016 (♂); KAM–P: 21.v.-12.vi.2016 (♂).

Rare European species. Notes on the area of interest: rare, biotopes in submontane parts are preferred. Critically endangered in the Czech Republic.

***Parajungiella longicornis* (Tonnoir, 1919)**

Published records. Kroča & Ježek (2015): SKM OR 1.; SKM OR 2
**Silesia**: SL 6: 11.vi.–3.vii.2016 (♂); MOR: 21.v.–20.vi.2011 (♂); SKM OR 1: 12.v.–21.viii.2009 (♂), 20.vi.–19.vii.2011 (♂); SKM OR 2: 12.v.–26.v.2009 (♂); SKM OR 3: 18.iv.–20.v.2011 (♂); B 1: 12.vi.–22.vi.2013 (♂); B 2: 13.v.–23.vi.2012 (♂); B 3: 13.v.–23.vi.2012 (♂); B 4: 13.v.–23.vi.2012 (♂); KAM–M: 14.v.–18.vi.2016 (♂), 13.viii.–28.viii.2016 (♂); KAM–J: 21.v.–12.vi.2016 (♂); KAM–P: 21.v.–12.vi.2016 (♂), 18.vi.–2.vii.2016 (♂).

Very common species distributed throughout Europe and western Siberia. Notes on the area of interest: common species of hilly areas of the Morávka river basin (all monitored biotopes).

***Parajungiella prikryli* Ježek, 1999 (VU)**

**Silesia**: MOR: 21.v.–20.vi.2011 (♂); SKM OR 1: 12.v.–12.vi.2009 (♂); B 2: 13.v.–23.vi.2012 (♂).

Probably rare Central European species, known only from the Czech Republic and Slovakia. Distribution in the Czech Republic: Western Bohemia (Ježek 1999, Ježek *et al*. 2018), Jizerské hory PLA (Ježek *et al.* 2008), Podyjí NP (Ježek 2003; Ježek *et al.* 2005), Bílé Karpaty PLA (Ježek & Omelková 2012). Inhabits brook meanders, shaded swamps, ponds and water reservoirs from lowland to hilly regions. Notes on the area of interest: rare species of cutoff streams and brooklets in upland parts. Vulnerable in the Czech Republic.

***Parajungiella pseudolongicornis* (Wagner, 1975) (CR)**

**Silesia**: SL 6: 18.vi.–3.vii.2016 (♂); SKM OR 1: 12.v.–26.v.2009 (♂); B 3: 13.v.–23.vi.2012 (♂); KAM–J: 14.v.–21.v.2016 (♂).

Rare European species, recorded from several countries so far. Distribution in the Czech Republic: Vráž nr. Písek (Ježek *et al.* 2013), Western Bohemia (Ježek 1996, 1999, Ježek *et al*. 2018), Jizerské hory PLA (Ježek *et al.* 2008), Orlické hory PLA (Ježek & Hájek 2007), Podyjí NP (Ježek 2003; Ježek *et al.* 2005), Bílé Karpaty PLA (Omelková *et al.* 2008; Ježek & Omelková 2012). Known from habitats with decaying organic matter (ponds, brooks, river meanders, rills and swamps) from lowlands to mountains. Notes on the area of interest: rare species, collected only in the Morávka river basin (cutoff streams and brooks of upland parts). Critically endangered in the Czech Republic.

***Parajungiella serbica* (Krek, 1985) (CR)**

Published records. Kroča & Ježek (2015): SKM OR 3
**Silesia**: SKM OR 1: 12.v.–26.v.2009 (♂); B 2: 13.v.–23.vi.2012 (♂); B 3: 13.v.–23.vi.2012 (♂); KAM–M: 14.v.–18.vi.2016 (♂), 15.vii.–28.viii.2016 (♂).
Quite rare species, known from Central Europe and the Balkans. Inhabits small streams, wetlands, water reservoirs and salt marshes. Notes on the area of interest: scarce, in the Morávka river basin found in a peat bog in the Kamenec NM, brooklets and cutoff streams in a river floodplain. Critically endangered in the Czech Republic.

***Paramormia (Duckhousiella) ustulata* (Walker, 1856)**

Published records. Kroča & Ježek (2015): SKM OR 3
**Silesia:** SKM OR 2: 8.iv.–22.iv.2009 (♂); B 1: 22.vi.–13.vii.2013 (♂), 27.vii.–23.viii.2013 (♂); KAM – J: 21.v.–12.vi.2016 (♂).

Common Holarctic species. Notes on the area of interest: rare species of upland parts (streams and brooklets).

***Paramormia* (*Paramormia*) *polyascoidea* (Krek, 1971)**

Published records. Kroča & Ježek (2015): SKM OR 2; SKM OR 3
**Silesia**: SKM OR 1: 14.vii.–21.viii.2009 (♂); SKM OR 3: 18.iv.–19.vii.2011 (♂), 24.viii.–29.ix.2011 (♂); B 1: 10.v.–22.vi.2013 (♂), 13.vii.–23.viii.2013 (♂); B 2: 23.iv.–7.ix.2012 (♂).

European and West Siberian species penetrating from Germany to the Transcaucasia (Abkhazia, Armenia; Ježek, Manko, Oboňa 2018) and Russia. Inhabits wetland biotopes, spring areas, surroundings of meandering small streams and ponds from lowlands to mountains. Notes on the area of interest: rare species of cutoff streams and brooks of the River Morávka floodplain (upland part).

***Peripsychoda auriculata* (Curtis, 1839)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; K 3.
**Silesia**: ČV 2: 13.vi.–14.vii.2009 (♂); ČV 3: 13.vi.–14.vii.2009 (♂); MOR: 21.v.–22.viii.2011 (♂); SKM OR 1: 12.v.–21.viii.2009 (♂), 20.vi.–19.vii.2011 (♂), 22.viii.–30.ix.2011; SKM OR 3: 20.vi.–19.vii.2011 (♂); B 1: 22.vi.–27.vii.2013 (♂); B 2: 13.v.–9.vii.2012 (♂); B 3: 13.v.–19.viii.2012 (♂); B 4: 23.vi.–9.vii.2012 (♂); KAM–M: 22.iv.-1.x.2016 (♂); KAM–J: 21.v.–30.vii.2016 (♂); KAM–P: 15.iv.–22.iv.2016 (♂), 21.v.–12.vi.2016 (♂), 18.vi.–13.viii.2016 (♂).

Common European and Transcaucasian species, published from lowlands to hilly regions. Prefers sites with decaying organic matter. Notes on the area of interest: abundant in foothills.

***Peripsychoda fusca* (Macquart, 1826) (CR)**

Published records. Kroča & Ježek (2015): S 2
**Silesia**: SKM OR 1: 26.v.–12.vi.2009 (♂). **Moravia**: S 1: 21.vi.–18.vii.2011 (♂).

European species, rare in the Czech Republic. Prefers sites with mats of bryophytes with an accumulation of slightly rotten leaves of trees or shrubs. Notes on the area of interest: rare species of highland and upland parts. Critically endangered in the Czech Republic.

***Peripsychoda zbytka* Ježek, 2004 (NS)**

**Silesia**: B 2: 23.vi.–9.vii.2012 (♂).

Probably rare Central European species, morphologically peculiar. Known only from a single Bohemian locality (Zbytka NR) in the Czech Republic until now (Ježek 2004, Ježek & Hájek 2007). Notes on the area of interest: extremely rare species of brooklets in the upland part. First record from Moravia (incl. Silesia) and the Carpathians. Nationally scarce in the Czech Republic.

***Telmatoscopus advena* Eaton, 1893 (CR)**
*Sciria advena* (Eaton, 1893) – reclassified by Kvifte (2014).

Published records. Kroča & Ježek (2015): S 2; K 1.
**Silesia**: SKM OR 1: 14.vii.–21.viii.2009 (♂), 20.vi.–19.vii.2011 (♂); SKM OR 3: 18.iv.–20.v.2011 (♂), 20.vi.–19.vii.2011 (♂). **Moravia:** S 1: 21.vi.–18.vii.2011 (♂); S 2: 8.viii.–5.ix.2007 (♂).

Rare western and Central European dendrolimnobiontic species. Prefers natural floodplain forests. Adults can be found in marshy and flooded habitats near streams. Notes on the area of interest: rare species, apparently bound to natural forests, occurs only in areas of NNR or NNM; altitude not significant. Critically endangered in the Czech Republic.

***Seoda carthusiana* (Vaillant, 1972)**
*Telmatoscopus carthusianus* (Vaillant, 1972) – reclassified by Kvifte (2014).

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 2; K 1.
**Silesia**: SU 3: 15.v.–12.vi.2007 (♂); SL 6: 22.v.–11.vi.2016 (♂); ČV 3: 12.v.–26.v.2009 (♂); MOR: 21.v.–20.vi.2011 (♂); SKM OR 1: 12.v.–12.vi.2009 (♂), 18.iv.–21.v.2011 (♂); SKM OR 2: 12.v.–26.v.2009 (♂), 21.v.–30.v.2011 (♂); SKM OR 3: 18.iv.–20.v.2011 (♂); KAM–J: 12.vi.–18.vi.2016 (♂); KAM–P: 22.iv.-14.v.2016 (♂). **Moravia:** S 2: 12.v.–2.vi.2008 (♂).

Species of western and Central Europe. Common from lowlands to mountains. Prefers forest springs, marshy meadows, streams and rivers. Notes on the area of interest: quite common and abundant species.

***Seoda gressica* (Vaillant, 1972)**
*Telmatoscopus gressicus* (Vaillant, 1972) – reclassified by Kvifte (2014).

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; K 3.
**Silesia**: SL 2: 15.v.–26.vi.2008 (♂); SL 5: 26.v.–12.vi.2009 (♂); SL 6: 22.v.–11.vi.2016 (♂); ČV 3: 26.v.–14.vii.2009 (♂); KR: 22.iv.–12.vi.2009 (♂); MOR: 21.v.–20.vi.2011 (♂); SKM OR 1: 22.iv.–12.vi.2009 (♂); SKM OR 2: 12.v.–26.v.2009 (♂), 21.v.–30.v.2011 (♂); B 1: 10.v.–12.vi.2013 (♂); B 3: 13.v.–23.vi.2012 (♂); B 4: 23.iv.–23.vi.2012 (♂); KAM–M: 21.v.–12.vi.2016 (♂); KAM–J: 14.v.–21.v.2016 (♂).

European species. Found in the same habitats as *S. carthusiana*. Notes on the area of interest: quite common and abundant species.

***Feuerborniella obscura* (Tonnoir, 1919)**

Published records. Kroča & Ježek (2015): S 1; S 2
**Silesia**: SU 3: 12.vi.–10.vii.2007 (♀); ČV 1: 14.vii.–21.viii.2009 (♀); SKM OR 1: 12.vi.–14.vii.2009 (♀); SKM OR 2: 30.iii.–18.iv.2011 (♂); B 3: 9.vii.–27.vii.2012 (♀); B 4: 13.v.–23.vi.2012 (♂); KAM–M: 21.v.-2.vii.2016 (♀), 15.vii.–10.ix.2016 (♂); KAM–J: 14.v.–21.v.2016 (♂), 12.vi.–2.vii.2016 (♂), 30.vii.–13.viii.2016 (♂); KAM–P: 15.iv.–22.iv.2016 (♀), 21.v.–12.vi.2016 (♀).

Common European species. Found in various habitats at a wide range of altitudes. Notes on the area of interest: common and abundant species of hilly areas, rarely at higher elevations.

***Philosepedon* (*Philosepedon*) *austriacum* Vaillant, 1974**

Published records. Kroča & Ježek (2015): S 1
**Silesia**: SL 2: 15.v.–5.vi.2008 (♂); SKM OR 1: 22.iv.–21.viii.2009 (♂), 18.iv.–21.v.2011 (♂); SKM OR 2: 30.iii.–18.iv.2011 (♂); SKM OR 3: 18.iv.–20.v.2011 (♂); KAM–M: 2.vii.–15.vii.2016 (♂); KAM–P: 2.vii.–15.vii.2016 (♂).

Euryvalent species, found at a wide range of altitudes. Biology unknown. Notes on the area of interest: rare, probably sensitive species, found only in some specially protected areas.

***Philosepedon* (*Philosepedon*) *hrudkai* Ježek, 1999 (VU)**

Published records. Kroča & Ježek (2015): SKM OR 1.
**Silesia:** B 3: 7.ix.–10.x.2012 (♂).

Very rare Central European species. Biology unknown. Notes on the area of interest: very rare species, only found near a cutoff stream and a nearby brook in the floodplain. Vulnerable in the Czech Republic.

***Philosepedon* (*Philosepedon*) *humerale* Meigen, 1818**

**Silesia**: SL 6: 15.v.–22.v.2016 (♂), 27.viii.–10.ix.2016 (♂); SKM OR 1: 26.v.–12.vi.2009 (♂); SKM OR 2: 22.iv.–12.v.2009 (♂); SKM OR 3: 24.viii.–29.ix.2011 (♂); KAM–M: 22.iv.–14.v.2016 (♂), 2.vii.–30.vii.2016 (♂).

Generally common European species. Occurs from lowlands to mountains on sites with mollusc shells. As far as is known, larvae only develop during winter in dead terrestrial snails (eclosion at the beginning of spring). Notes on the area of interest: a relatively rare species, found mainly in the upland part of the Morávka river basin.

***Philosepedon* (*Philothreticus*) *soljani* Krek, 1971 (NS)**

Published records. Kroča & Ježek (2015): S 1
**Silesia**: ČV 1: 13.vi.–14.vii.2009 (♂); KR: 12.vi.–14.vii.2009 (♂); MOR: 21.v.–20.vi.2011 (♂). **Moravia:** S 1: 21.vi.–18.vii.2011 (♂), 23.viii.–27.ix.2011 (♂).

Very rare species, so far known only from Slovenia, Bosnia and Herzegovina and the Czech Republic. Notes on the area of interest: rare species of springs and brooks in highlands; at the Morávka - cutoff stream (MOR) site,

occurrence probably bound to shallow banks. Nationally scarce in the Czech Republic.

***Philosepedon* (*Trichosepedon*) *balkanicum* Krek, 1971 (CR)**

Published records. Kroča & Ježek (2015): S 1; S 2; K 3.
**Silesia**: SL 1: 17.vii.–7.viii.2008 (♂); SL 2: 15.v.–5.vi.2008 (♂), 17.vii.–13.xi.2008 (♂); SL 4: 15.v.–26.vi.2008 (♂); SL 6: 15.v.–22.v.2016 (♂); ČV 2: 26.v.–13.vi.2009 (♂). **Moravia:** S 1: 23.viii.–27.ix.2011 (♂); S 2: 8.viii.–5.ix.2007 (♂), 12.v.–2.vi.2008 (♂); K 1: 23.viii.–3.x.2011 (♂).

Montane European species known also from Caucasus (Abkhazia). Inhabits slope springs, avalanche tracks and forest wells and streams. Notes on the area of interest: a relatively common species of mountain streams in beech forests. Critically endangered in the Czech Republic.

***Threticus balkaneoalpinus* Krek, 1972**

Published records. Kroča & Ježek (2015): S 1; S 2; K 2; K 3.
**Silesia**: SU 3: 15.v.–7.viii.2007 (♂); SL 1: 15.v.–5.vi.2008 (♂), 17.vii.–11.ix.2008 (♂); SL 2: 15.v.–17.vii.2008 (♂), 7.viii.–11.ix.2008 (♂); ČV 1: 26.v.–13.vi.2009 (♂), 14.vii.–21.viii.2009 (♂). **Moravia:** S 1: 21.vi.–18.vii.2011 (♂), 23.viii.–27.ix.2011 (♂); S 2: 8.viii.–5.ix.2007 (♂), 12.v.–2.vi.2008 (♂), 24.vi.–5.viii.2008 (♂).

European species with western frontier in France, penetrating eastwards through Central European countries as far as Transcaucasia. Notes on the area of interest: common montane species, inhabiting spring areas and stream valleys.

***Threticus incurvus* Krek, 1972**

**Silesia**: SL 6: 22.iv.–11.vi.2016 (♂).

Rare species, known from Germany, Switzerland, Austria, Czech Republic, Slovakia Bosnia and Bulgaria. In the Czech Republic, known from Jeseníky PLA (Ježek 1996, 2006b) and Bílé Karpaty PLA (Omelková *et al.* 2008, Ježek & Omelková 2012). Found in various habitats. Notes on the area of interest: one of the rarest species, collected at the Slavíč 6 site only (narrow montane river floodplain).

***Threticus lucifugus* (Walker, 1856)**

**Silesia**: Z 1: 17.vii.–7.viii.2008 (♂), 11.ix.–13.xi.2008 (♂); SU 3: 10.vii.–5.ix.2007 (♂); SL 6: 27.viii.–1.x.2016 (♂); SKM OR 1: 12.v.–26.v.2009 (♂), 21.viii.–7.ix.2009 (♂); SKM OR 3: 18.iv.–20.v.2011 (♂).

Common European species. In the Czech Republic, known from České Budějovice and surroundings (Ježek 1986), Prague (Ježek 1995), Western Bohemia (Ježek 1999, Ježek *et al*. 2018), Jizerské hory PLA (Ježek *et al.* 2008), Orlické hory PLA (Ježek & Hájek 2007), Jeseníky PLA (2006b). Notes on the area of interest: quite rare species; occurs in montane spring brooks and rivers, including cutoff streams of braided flows in upland parts.

***Threticus negrobovi* Vaillant, 1972 (NS)**

Published records. Kroča & Ježek (2015): S 1; K 2; K 3.
**Silesia**: Z 3: 15.v.–5.vi.2008 (♂); SU 3: 15.v.–7.viii.2007 (♂); SL 4: 5.vi.–26.vi.2008 (♂); ČV 1: 26.v.–13.vi.2009 (♂). **Moravia:** S 1: 21.vi.–18.vii.2011 (♂); S 2: 12.v.–2.vi.2008 (♂), 24.vi.–16.vii.2008 (♂).

Very rare species, distributed from Central Europe to Transcaucasia (Abkhazia, Georgia). Inhabits springs and small streams in montane regions. Notes on the area of interest: quite scarce species of montane stream valleys. Nationally scarce in the Czech Republic.

***Threticus silvaticus* Ježek, 1985 (VU)**

Published records. Kroča & Ježek (2015): K 3.
**Silesia**: Z 1: 5.vi.–17.vii.2008 (♂); SU 3: 7.viii.–9.x.2007 (♂); SL 4: 11.ix.–13.xi.2008 (♂); SL 6: 14.viii.–27.viii.2016 (♂), 13.xi.–27.xi.2016 (♂); SKM OR 2: 22.iv.–12.v.2009 (♂).

Rare Central European species, so far known only from Slovakia and Czech Republic. Notes on the area of interest: quite rare species, occurring near montane spring brooks (Z 1, SU 3) and streams (SL 4, SL 6) as well as a cutoff stream of a braided flow in the upland area (SKM OR 2). Vulnerable in the Czech Republic.

***Trichopsychoda hirtella* (Tonnoir, 1919)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 2
**Silesia**: SU 3: 12.vi.–5.ix.2007 (♀); SL 2: 7.viii.–11.ix.2008 (♀); SL 4: 5.vi.–26.vi.2008 (♂), 7.viii.–11.ix.2008 (♂); SL 5: 14.vii.–7.ix.2009 (♀); SL 6: 11.vi.–3.vii.2016 (♀), 30.vii.–14.viii.2016 (♀), 27.viii.–10.ix.2016 (♀); ČV 1: 12.v.–26.v.2009 (♂), 13.vi.–21.viii.2009 (♀); ČV 2: 14.vii.–7.ix.2009 (♂); ČV 3: 26.v.–13.vi.2009 (♀),

7.ix.-6.x.2009 (♀); KR: 12.vi.–6.x.2009 (♂♀); MOR: 21.v.–2.xi.2011 (♂♀); SKM OR 1: 12.v.–7.ix.2009 (♂♀), 18.iv.–21.v.2011 (♀), 20.vi.–19.vii.2011 (♂), 22.viii.–30.ix.2011 (♂); SKM OR 2: 21.v.–30.v.2011 (♀); SKM OR 3: 20.vi.–19.vii.2011 (♀), 24.viii.–29.ix.2011 (♀); B 1: 10.v.–20.x.2013 (♂♀); B 2: 13.v.–10.x.2012 (♂♀); B 3: 13.v.–10.x.2012 (♂♀); B 4: 23.vi.–9.vii.2012 (♀), 19.viii.–7.ix.2012 (♂); KAM–M: 14.v.–12.vi.2016 (♂♀), 18.vi.-2.vii.2016 (♀), 15.vii.–1.x.2016 (♂♀); KAM–J: 21.v.–12.vi.2016 (♂), 28.viii.–1.x.2016 (♂); KAM–P: 21.v.–12.vi.2016 (♀), 2.vii.–15.vii.2016 (♀), 13.viii.–28.viii.2016 (♀). **Moravia:** S 1: 23.viii.–27.ix.2011 (♀); S 2: 24.vi.–16.vii.2008 (♀); K 1: 23.viii.–3.x.2011 (♀); K 3: 23.viii.–3.x.2011 (♀).

Generally common European species. Notes on the area of interest: one of the most common species with the area monitored.

***Apsycha pusilla* (Tonnoir, 1922) (NS)**

**Silesia**: B 2: 13.v.–9.vii.2012 (♂).

Holarctic species, recorded from several European countries, with some records from the USA (Ježek 2007, 2009b; for new information see Ježek, Grootaert *et al.* 2018). Distribution in the Czech Republic: Labské pískovce PLA (Ježek 2009b), Bílé Karpaty PLA (Ježek & Omelková 2012). Occurring on farms and in forest swampy areas, being coprophilous or coprobiontic. Notes on the area of interest: one of the rarest species, found only on the banks of Bahno brook in the Morávka river basin (upland part). Nationally scarce in the Czech Republic.

***Chodopsycha buxtoni* (Withers, 1988) (NS)**

**Silesia:** KAM–J: 12.vi.–18.vi.2016 (♂).

Area of distribution not well known. Some specimens found in United Kingdom, Slovakia and the Czech Republic - Pálava UBR (Ježek 2003) and České Švýcarsko NP (Ježek 2006a). Associated with fungi. Notes on the area of interest: one of the rarest species, found only near a peat pond (Kamenec NM). Nationally scarce in the Czech Republic.

***Chodopsycha lobata* (Tonnoir, 1940)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 1; S 2; K 1; K 3.
**Silesia**: Z 2: 17.vii.–7.viii.2008 (♂); Z 3: 15.v.–7.viii.2008 (♀); SU 3: 15.v.–9.x.2007 (♂♀); SL 1: 26.vi.–13.xi.2008 (♂♀); SL 2: 15.v.–13.xi.2008 (♂♀); SL 4: 5.vi.–13.xi.2008 (♂♀); SL 5: 14.vii.–6.x.2009 (♂♀); SL 6: 3.vii.–17.vii.2016 (♀), 14.viii.–27.viii.2016 (♀); ČV 1: 13.vi.–6.x.2009 (♀); ČV 2: 14.vii.–21.viii.2009 (♀), 7.ix.-6.x.2009 (♀); ČV 3: 14.vii.–21.viii.2009 (♀); KR: 14.vii.–21.viii.2009 (♀); MOR: 21.v.–22.viii.2011 (♀); SKM OR 1: 26.v.–21.viii.2009 (♀), 22.viii.–30.ix.2011 (♀); SKM OR 2: 21.v.–30.v.2011 (♀); SKM OR 3: 20.vi.–19.vii.2011 (♀), 24.viii.–29.ix.2011 (♀); B 2: 23.vi.–9.vii.2012 (♀); B 3: 23.iv.–13.v.2012 (♀), 23.vi.–9.vii.2012 (♀), 10.x.–2.xi.2012 (♀); KAM–M: 12.vi.–18.vi.2016 (♀), 1.x.–30.x.2016 (♀); KAM–J: 14.v.–21.v.2016 (♀), 18.vi.–2.vii.2016 (♀), 10.ix.–15.x.2016 (♀); KAM–P: 15.iv.–12.vi.2016 (♀), 18.vi.–15.vii.2016 (♀), 13.viii.–28.viii.2016 (♀), 10.ix.–1.x.2016 (♀). **Moravia:** S 1: 21.vi.–18.vii.2011 (♀), 23.viii.–27.ix.2011 (♀); S 2: 8.viii.–5.ix.2007 (♀), 24.vi.–5.viii.2008 (♀); K 1: 23.viii.–3.x.2011 (♀); K 3: 23.viii.–3.x.2011 (♀).

Generally common species, occurring across Europe to Transcaucasia. Associated with fungi. Common from lowlands to mountains. Notes on the area of interest: one of the most common species within the area monitored.

***Copropsychoda brevicornis* (Tonnoir, 1940)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 3
**Silesia**: Z 3: 26.vi.–17.vii.2008 (♀); ČV 2: 22.iv.–12.v.2009 (♀); MOR: 22.viii.–29.ix.2011 (♂); SKM OR 1: 22.iv.–12.v.2009 (♀), 26.v.–14.vii.2009 (♀), 18.iv.–21.v.2011 (♂); SKM OR 3: 20.vi.–19.vii.2011 (♀); B 1: 20.iv.–27.vii.2013 (♂♀); B 2: 13.v.–19.viii.2012 (♂); B 3: 23.vi.–9.vii.2012 (♂), 7.ix.–10.x.2012 (♀). **Moravia:** S 1: 23.viii.–27.ix.2011 (♀); S 2: 12.v.–2.vi.2008 (♀); K 1: 23.viii.–3.x.2011 (♀).

Common species, mainly in western Palaearctic. Saprophagous. Notes on the area of interest: abundant species, found in the vicinity of spring brooks, brooks and cutoff streams.

***Logima albipennis* (Zetterstedt, 1850)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 1; S 2; K 1; K 3.
**Silesia**: Z 1: 26.vi.–7.viii.2008 (♀); Z 2: 10.iv.–15.v.2008 (♀); Z 3: 15.v.–26.vi.2008 (♀), 11.ix.–13.xi.2008 (♀); SU 3: 17.iv.–9.x.2007 (♀); SL 1: 5.vi.–26.vi.2008 (♀), 7.viii.–13.xi.2008 (♀); SL 2: 15.v.–26.vi.2008 (♀), 11.ix.–13.xi.2008 (♀); SL 4: 10.iv.–15.v.2008 (♀), 5.vi.–13.xi.2008 (♀); SL 5: 23.iv.–12.v.2012 (♀), 14.vii.–21.viii.2009 (♀); SL 6: 28.iii.–27.xi.2016 (♀); ČV 1: 22.iv.–12.v.2009 (♀), 26.v.–21.viii.2009 (♀); ČV 3: 8.iv.–22.iv.2009 (♀), 12.v.–26.v.2009 (♀), 13.vi.–21.viii.2009 (♀); KR: 8.iv.–22.iv.2009 (♀), 26.v.–21.viii.2009 (♀); MOR: 18.iv.–29.ix.2011 (♀); SKM OR 1: 22.iv.–7.ix.2009 (♀), 18.iv.–21.v.2011 (♀), 20.vi.–19.vii.2011 (♀); SKM OR 2: 8.iv.–

26.v.2009 (♀), 30.iii.–30.v.2011 (♀); SKM OR 3: 18.iv.–19.vii.2011 (♀), 24.viii.–29.ix.2011 (♀); B 1: 20.iv.–23.viii.2013 (♀), 3.xi.–22.xi.2013 (♀); B 2: 3.iv.–23.iv.2012 (♀), 13.v.–27.vii.2012 (♀); B 3: 23.iv.–13.v.2012 (♀), 23.vi.–9.vii.2012 (♀),19.viii.–7.ix.2012 (♀), 10.x.–2.xi.2012 (♀); B 4: 10.x.–2.xi.2012 (♀); KAM–M: 15.iv.-10.xii.2016 (♀); KAM–J: 15.iv.–2.vii.2016 (♀), 15.vii.–30.vii.2016 (♀), 1.x.–30.x.2016 (♀); KAM–P: 15.iv.–14.v.2016 (♀), 21.v.–12.vi.2016 (♀), 18.vi.–2.vii.2016 (♀), 15.vii.–30.vii.2016 (♀). **Moravia:** S 1: 23.viii.–27.ix.2011 (♀); S 2: 12.v.–2.vi.2008 (♀), 24.vi.–5.viii.2008 (♀); K 3: 23.viii.–3.x.2011 (♀).

Very common, cosmopolitan and eurybiontic species. Inhabits localities from lowlands to mountains. Larvae are saprophagous. Notes on the area of interest: one of the most common species.

***Logima erminea* (Eaton, 1893)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 1; S 2; K 1; K 3.
**Silesia**: SL 4: 7.viii.–11.ix.2008 (♀); SL 5: 14.vii.–21.viii.2009 (♂), 7.ix.-6.x.2009 (♂);
SL 6: 15.v.-22.v.2016 (♂); KR: 8.iv.-22.iv.2009 (♀), 7.ix.-6.x.2009 (♀); MOR: 20.vi.–2.xi.2011 (♀); SKM OR 1: 26.v.–12.vi.2009 (♀), 14.vii.–7.ix.2009 (♂), 18.iv.–21.v.2011 (♀), 20.vi.–19.vii.2011 (♀), 22.viii.–30.ix.2011 (♀); SKM OR 3: 18.iv.–19.vii.2011 (♀), 24.viii.–29.ix.2011 (♀); B 1: 10.v.-12.vi.2013 (♂), 22.vi.-13.vii.2013 (♀), 27.vii.-20.x.2013 (♂♀); B 2: 13.v.– 9.vii.2012 (♀), 27.vii.–19.viii.2012 (♀); B 3: 13.v.–2.xi.2012 (♂♀); B 4: 23.vi.–9.vii.2012 (♀), 27.vii.–7.ix.2012 (♂♀), 10.x.–2.xi.2012 (♂); KAM–M: 13.xi.-26.xi.2016 (♂); KAM–P: 15.iv.-22.iv.2016 (♂), 2.vii.-30.vii.2016 (♀).

Common Palaearctic species found in a wide range of altitudes, associated with fungi and caves. Notes on the area of interest: one of the most common species.

***Logima satchelli* (Quate, 1955)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 1S 2; K 1; K 2; K 3.
**Silesia**: Z 1: 15.v.–7.viii.2008 (♂♀); Z 3: 10.iv.–7.viii.2008 (♂♀); SU 3: 17.iv.–7.viii.2007 (♀), 5.ix.–9.x.2007 (♀); SL 1: 15.v.–5.vi.2008 (♂), 26.vi.–17.vii.2008 (♂); SL 2: 10.iv.–17.vii.2008 (♂♀), 7.viii.–13.xi.2008 (♂♀); SL 4: 10.iv.–13.xi.2008 (♂♀); SL 5: 12.v.–7.ix.2009 (♂♀), 23.iv.–12.v.2012 (♀); SL 6: 22.iv.–11.vi.2016 (♂♀), 18.vi.–17.vii.2016 (♂♀), 1.x.–16.x.2016 (♂); ČV 1: 22.iv.–21.viii.2009 (♂♀); ČV 2: 8.iv.–26.v.2009 (♂♀), 13.vi.–21.viii.2009 (♀); ČV 3: 8.iv.–12.v.2009 (♀), 13.vi–21.viii.2009 (♂); KR: 8.iv.–7.ix.2009 (♂♀); MOR: 18.iv.–2.xi.2011 (♂♀); SKM OR 1: 22.iv.–26.v.2009 (♀), 12.vi.–7.ix.2009 (♂♀), 18.iv.–21.v.2011 (♂), 20.vi.–19.vii.2011 (♂), 22.viii.–30.ix.2011 (♀); SKM OR 2: 8.iv.–26.v.2009 (♂♀), 30.iii.–30.v.2011 (♂♀); SKM OR 3: 18.iv.–20.v.2011 (♂), 20.vi.–19.vii.2011 (♀), 24.viii.–29.ix.2011 (♀); B 1: 20.iv.–27.vii.2013 (♂♀), 3.xi.–22.xi.2013 (♂); B 2: 3.iv.–9.vii.2012 (♂♀), 27.vii.–19.viii.2012 (♀), 7.ix.–2.xi.2012 (♂♀); B 3: 3.iv.–9.vii.2012 (♂♀), 7.ix.–2.xi.2012 (♂♀); B 4: 3.iv.–13.v.2012 (♂), 7.ix.–2.xi.2012 (♀); KAM–M: 21.v.-12.vi.2016 (♂), 1.x.–10.xii.2016 (♂♀); KAM–J: 15.x.-30.x.2016 (♂); KAM–P: 15.iv.-22.iv.2016 (♀), 18.vi.–15.vii.2016 (♂), 30.x.–13.xi.2016 (♀). **Moravia:** S 1: 21.vi.–18.vii.2011 (♀), 23.viii.–27.ix.2011 (♂); S 2: 12.v.–2.vi.2008 (♀), 24.vi.–5.viii.2008 (♀); K 1: 23.viii.–3.x.2011 (♂).

Common Holarctic species, eurybiontic, known from a wide range of altitudes. Notes on the area of interest: one of the most common species.

***Logima zetterstedti* Ježek, 1983**

Published records. Kroča & Ježek (2015): SKM OR 1; S 2; K 1; K 3.
**Silesia**: Z 3: 10.iv.–15.v.2008 (♀); SU 3: 10.vii.– 5.ix.2007 (♂); SL 2: 15.v.–5.vi.2008 (♀); SL 4: 26.vi.–17.vii.2008 (♀); SL 6: 28.iii.–16.iv.2016 (♀), 15.v.–11.vi.2016 (♀), 18.vi.–3.vii.2016 (♀); ČV 1: 22.iv.–12.v.2009 (♀); ČV 2: 8.iv.–12.v.2009 (♀), 14.vii.–21.viii.2009 (♀); ČV 3: 8.iv.–12.v.2009 (♀), 7.ix.–6.x.2009 (♀); KR: 12.v.–26.v.2009 (♂); MOR: 21.v.–18.vii.2011 (♀); SKM OR 1: 12.v.–14.vii.2009 (♀), 18.iv.–21.v.2011 (♀); SKM OR 2: 8.iv.–22.iv.2009 (♀), 30.iii.–21.v.2011 (♀); B 2: 23.iv.–13.v.2012 (♀), 27.vii.–19.viii.2012 (♀); B 3: 23.iv.–23.vi.2012 (♀); KAM–M: 22.iv.-14.v.2016 (♀), 10.ix.–1.x.2016 (♂), 13.xi.–26.xi.2016 (♀); KAM–J: 22.iv.–14.v.2016 (♀), 21.v.–18.vi.2016 (♀); KAM–P: 14.v.–21.v.2016 (♀), 13.viii.–28.viii.2016 (♀). **Moravia:** S 1: 23.viii.–27.ix.2011 (♂); S 2: 16.vii.–5.viii.2008 (♀).

Generally common European and West Siberian species. Notes on the area of interest: one of the more common species.

***Psycha grisescens* (Tonnoir, 1922)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 1; S 2; K 1; K 2; K 3.
**Silesia**: Z 1: 5.vi.–17.vii.2008 (♀); Z 3: 10.iv.–17.vii.2008 (♀); SU 3: 17.iv.– 9.x.2007 (♂♀); SL 1: 10.iv.–5.vi.2008 (♂♀), 26.vi.-17.vii.2008 (♂), 7.viii.–11.ix.2008 (♂); SL 2: 10.iv.–26.vi.2008 (♀), 11.ix.–13.xi.2008 (♀); SL 4: 10.iv.–13.xi.2008 (♂ ♀); SL 5: 12.v.–12.vi.2009 (♀), 23.iv.–12.v.2012 (♀), 7.ix.–6.x.2009 (♀); SL 6: 28.iii.–15.v.2016 (♂), 22.v.-11.vi.2016 (♀), 10.ix.–27.xi.2016 (♂♀); ČV 1: 8.iv.–7.ix.2009 (♂♀); ČV 2: 8.iv.–26.v.2009

(♂♀), 14.vii.–21.viii.2009 (♂); ČV 3: iv. –12.v.2009 (♀); KR: 8.iv.–12.v.2009 (♀), 26.v.–6.x.2009 (♂♀); MOR: 18.iv.–2.xi.2011 (♂♀), 4.iv.–23.iv.2012 (♀); SKM OR 1: 22.iv.–7.ix.2009 (♀), 18.iv.–21.v.2011 (♀), 20.vi.–19.vii.2011 (♀), 22.viii.–30.ix.2011 (♀); SKM OR 2: 8.iv.–12.v.2009 (♀), 30.iii.–30.v.2011 (♀); SKM OR 3: 18.iv.–19.vii.2011 (♀), 24.viii.–29.ix.2011 (♀); B 1: 20.iv.–13.vii.2013 (♂♀), 23.viii.–13.ix.2013 (♀), 4.x.–20.x.2013 (♂), 3.xi.–22.xi.2013 (♀); B 2: 23.iv.–13.v.2012 (♂), 23.vi.–9.vii.2012 (♀), 27.vii.–19.viii.2012 (♀), 7.ix.–2.xi.2012 (♂♀); B 3: 3.iv.–9.vii.2012 (♀), 7.ix.–2.xi.2012 (♀); B 4: 3.iv.–13.v.2012 (♂♀), 10.x.–2.xi.2012 (♀); KAM–M: 22.iv. –12.vi.2016 (♂♀), 10.ix.–1.x.2016 (♂), 15.x.-30.x.2016 (♀), 13.xi.–26.xi.2016 (♀); KAM–J: 10.ix.–13.xi.2016 (♂♀); KAM–P: 15.iv.–14.v.2016 (♀), 12.vi.–2.vii.2016 (♀). **Moravia:** S 1: 21.vi.–18.vii.2011 (♀), 23.viii.–27.ix.2011 (♀); S 2: 8.viii.–5.ix.2007 (♀), 12.v.–2.vi.2008 (♀), 24.vi.–5.viii.2008 (♀); K 1: 23.viii.–3.x.2011 (♀); K 3: 23.viii.–3.x.2011 (♀).

Species known throughout Europe, including northern areas (British Isles, Scandinavia) and Central European countries, penetrating eastwards as far as Turkey (Anatolia). Southern frontier of distribution limited by North Africa. Notes on the area of interest: one of the most common species.

***Psychoda alticola* Vaillant, 1973 (NS)**

Published records. Kroča & Ježek (2015): SKM OR 1; S 1; K 1; K 2; K 3.
**Silesia**: Z 1: 5.vi.–26.vi.2008 (♂); SL 2: 7.viii.–11.ix.2008 (♂); SL 4: 26.vi.–11.ix.2008 (♂); SL 5: 12.v.–26.v.2009 (♀), 14.vii.–21.viii.2009 (♀); ČV 1: 8.iv.–22.iv.2009 (♂); ČV 2: 22.iv.–12.v.2009 (♂); ČV 3: 8.iv.–22.iv.2009 (♂); SKM OR 2: 30.iii.–18.iv.2011 (♂).

Rare species, found only in Austria, France and the Czech Republic so far. Notes on the area of interest: quite rare species, known mainly from montane biotopes (upland, cutoff streams). Nationally scarce in the Czech Republic.

***Psychoda crassipennis* Tonnoir, 1940 (NS)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3
**Silesia**: SL 5: 23.iv.–12.v.2012 (♂); SKM OR 1: 22.iv.–14.vii.2009 (♂), 18.iv.–21.v.2011 (♂); SKM OR 2: 8.iv.–22.iv.2009 (♀), 30.iii.–21.v.2011 (♂); SKM OR 3: 20.vi.–19.vii.2011 (♀); B 2: 23.iv.–9.vii.2012 (♂), 19.viii.–7.ix.2012 (♂), 10.x.–2.xi.2012 (♂); B 4: 3.iv.–13.v.2012 (♂), 10.x.–2.xi.2012 (♀).

European species distributed from the British Isles over the Atlantic coast
to Scandinavia, scarcely found in the Czech Republic. Lives in the littoral zone of polluted water reservoirs, swampy areas and in sewage waters. Some females recorded in sheaths of *Arum cylindraceum* as pollinators (Ježek & Omelková 2012). Notes on the area of interest: not quite common species of cutoff streams and brooks in the upland part. Nationally scarce in the Czech Republic.

***Psychoda phalaenoides* (Linné, 1758)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 1; S 2; K 1; K 2; K 3.
**Silesia**: Z 1: 15.v.– 5.vi.2008 (♀), 26.vi.–7.viii.2008 (♀); Z 2: 26.vi.–7.viii.2008 (♂♀); Z 3: 10.iv.–7.viii.2008 (♂♀), 11.ix.–13.xi.2008 (♂); SU 3: 15.v.–9.x.2007 (♂♀); SL 1: 5.vi.–7.viii.2008 (♂♀); SL 2: 10.iv.–13.xi.2008 (♂); SL 4: 10.iv.–13.xi.2008 (♂♀); SL 5: 26.v.–21.viii.2009 (♂♀), 7.ix.–6.x.2009 (♀); SL 6: 22.iv.–15.v.2016 (♂), 22.v.–14.viii.2016 (♂♀), 27.viii.–10.ix.2016 (♀), 1.x.–13.xi.2016 (♂♀); ČV 1: 22.iv.–12.v.2009 (♂), 26.v.–6.x.2009 (♂♀); ČV 2: 8.iv.–26.v.2009 (♂♀), 13.vi.–21.viii.2009 (♂♀), 7.ix.–6.x.2009 (♀); ČV 3: 22.iv.–12.v.2009 (♀), 13.vi.–14.vii.2009 (♂), 7.ix.–6.x.2009 (♂); KR: 8.iv.–7.ix.2009 (♂♀); MOR: 18.iv.–2.xi.2011 (♂), 4.iv.–23.iv.2012 (♂); SKM OR 1: 22.iv.–7.ix.2009 (♂♀), 18.iv.–21.v.2011 (♂), 20.vi.–19.vii.2011 (♂), 22.viii.–30.ix.2011 (♂); SKM OR 2: 8.iv.–26.v.2009 (♂♀), 30.iii.–30.v.2011 (♂♀); SKM OR 3: 18.iv.–19.vii.2011 (♂♀), 24.viii.–29.ix.2011 (♀); B 1: 20.iv.–23.viii.2013 (♂), 13.ix.–22.xi.2013 (♂); B 2: 3.iv.–9.vii.2012 (♂), 27.vii.–2.xi.2012 (♂); B 3: 3.iv.–2.xi.2012 (♂); B 4: 3.iv.–9.vii.2012 (♂♀), 7.ix.–2.xi.2012 (♀); KAM–M: 21.v.-12.vi.2016 (♂), 28.viii.–10.ix.2016 (♀), 15.x.–30.x.2016 (♂); KAM–J: 1.x.–15.x.2016 (♀); KAM–P: 22.iv.-14.v.2016 (♂), 18.vi.–2.vii.2016 (♀), 13.viii.–28.viii.2016 (♀). **Moravia:** S 1: 21.vi.–18.vii.2011 (♀), 23.viii.–27.ix.2011 (♂); S 2: 8.viii.–5.ix.2007 (♀), 12.v.–2.vi.2008 (♂), 24.vi.–5.viii.2008 (♂♀); K 1: 23.viii.–3.x.2011 (♂); K 3: 23.viii.–3.x.2011 (♀).

Holarctic polyvoltine (several generations per year) species, common, found at a wide range of altitudes. Notes on the area of interest: one of the most common species.

***Psychoda uniformata* Haseman, 1907**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 3.
**Silesia**: ČV 1: 13.vi.–14.vii.2009 (♀); SKM OR 1: 22.iv.–7.ix.2009 (♀), 18.iv.–21.v.2011 (♀), 20.vi.–19.vii.2011 (♀), 22.viii.–30.ix.2011 (♀); SKM OR 2: 21.v.–30.v.2011 (♀); SKM OR 3: 18.iv.–20.v.2011 (♀), 20.vi.–19.vii.2011 (♀); B 1: 22.vi.–13.ix.2013 (♀); B 2: 23.vi.–9.vii.2012 (♀), 27.vii.–10.x.2012 (♀); KAM–M: 13.viii.-28.viii.2016 (♀), 10.ix.–15.x.2016 (♀); KAM–P: 22.iv.-14.v.2016 (♀). **Moravia:** S 1: 21.vi.–18.vii.2011 (♀).

Holarctic species. Adults found in stables, cowsheds and poultry farms. Notes on the area of interest: abundant species of cutoff streams and brooks in hilly regions, rarely near spring brooks of highlands.

***Psychodocha cinerea* (Banks, 1894)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 1; S 2; K 3.
**Silesia**: Z 3: 15.v.–5.vi.2008 (♀); SU 3: 12.vi.–5.ix.2007 (♂♀); SL 2: 7.viii.–11.ix.2008 (♀); SL 4: 15.v.–26.vi.2008 (♂♀), 17.vii.–11.ix.2008 (♂♀); SL 5: 7.ix.–6.x.2009 (♀); SL 6: 3.vii.–17.vii.2016 (♂), 14.viii.–10.ix.2016 (♂); ČV 1: 22.iv.–12.v.2009 (♀), 13.vi.–21.viii.2009 (♀); ČV 2: 8.iv.–12.v.2009 (♀); ČV 3: 13.vi.–14.vii.2009 (♂); KR: 12.vi.–14.vii.2009 (♀), 7.ix.–6.x.2009 (♀); MOR: 18.iv.–22.viii.2011 (♀); SKM OR 1: 22.iv.–12.v.2009 (♀), 26.v.–7.ix.2009 (♀), 18.iv.–21.v.2011 (♀), 20.vi.–19.vii.2011 (♀), 22.viii.–30.ix.2011 (♀); SKM OR 2: 22.iv.–12.v.2009 (♀), 30.iii.–30.v.2011 (♀); SKM OR 3: 18.iv.–19.vii.2011 (♀), 24.viii.–29.ix.2011 (♀); B 1: 12.vi.–22.vi.2013 (♀), 27.vii.–23.viii.2013 (♂); B 2: 23.vi.–9.vii.2012 (♀),19.viii.–7.ix.2012 (♀); B 3: 23.iv.–13.v.2012 (♀), 9.vii.–10.x.2012 (♀); KAM–M: 22.iv.-14.v.2016 (♂), 18.vi.–2.vii.2016 (♀), 15.vii.–30.vii.2016 (♀), 13.viii.–30.x.2016 (♀), 13.xi.–26.xi.2016 (♀); KAM–J: 21.v.–12.vi.2016 (♀), 18.vi.–2.vii.2016 (♀), 15.vii.–13.viii.2016 (♀), 10.ix.–30.x.2016 (♀); KAM–P: 15.iv.–12.vi.2016 (♀), 18.vi.–15.vii.2016 (♂♀), 13.viii.–1.x.2016 (♀), 15.x.–30.x.2016 (♂). **Moravia:** S 1: 21.vi.–18.vii.2011 (♀), 23.viii.–27.ix.2011 (♀); S 2: 8.viii.–5.ix.2007 (♀), 24.vi.–16.vii.2008 (♀).

Cosmopolitan species, occurring generally at a wide range of altitudes. Notes on the area of interest: one of the most common species.

***Psychodocha gemina* (Eaton, 1904)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 1; S 2; K 1; K 2; K 3.
**Silesia**: Z 1: 15.v.–13.xi.2008 (♂♀); Z 3: 10.iv.–7.viii.2008 (♀), 11.ix.–13.xi.2008 (♀); SU 3: 17.iv.–5.xi.2007 (♂♀); SL 1: 10.iv.–26.vi.2008 (♂♀), 7.viii.–11.ix.2008 (♂); SL 2: 10.iv.–11.ix.2008 (♂♀); SL 4: 10.iv.–13.xi.2008 (♂♀); SL 5: 12.v.–6.x.2009 (♂♀), 23.iv.–12.v.2012 (♀); SL 6: 22.iv.–16.x.2016 (♂♀); ČV 1: 22.iv.–6.x.2009 (♂♀); ČV 2: 22.iv.–6.x.2009 (♀); ČV 3: 22.iv.–6.x.2009 (♂♀); KR: 22.iv.–26.v.2009 (♂), 12.vi.–6.x.2009 (♂♀); MOR: 18.iv.–2.xi.2011 (♂♀); SKM OR 1: 22.iv.–7.ix.2009 (♂♀), 18.iv.–21.v.2011 (♂), 20.vi.–19.vii.2011 (♂), 22.viii.–30.ix.2011 (♂); SKM OR 2: 8.iv.–26.v.2009 (♂), 30.iii.–30.v.2011 (♂♀); SKM OR 3: 18.iv.–19.vii.2011 (♀), 24.viii.–29.ix.2011 (♀); B 1: 20.iv.–20.x.2013 (♂♀); B 2: 23.iv.–10.x.2012 (♂♀); B 3: 23.iv.–2.xi.2012 (♂♀); B 4: 23.iv.–10.x.2012 (♂♀); KAM–M: 22.iv.-30.x.2016 (♂♀); KAM–J: 22.iv.–21.v.2016 (♂♀), 18.vi.–13.xi.2016 (♂♀); KAM–P: 15.iv.–12.vi.2016 (♂♀), 18.vi.–1.x.2016 (♂♀), 15.x.–30.x.2016 (♂). **Moravia:** S 1: 21.vi.–18.vii.2011 (♀), 23.viii.–27.ix.2011 (♂); S 2: 8.viii.–5.ix.2007 (♀), 12.v.–2.vi.2008 (♂), 24.vi.–5.viii.2008 (♀); K 1: 23.viii.–3.x.2011 (♂); K 3: 23.viii.–3.x.2011 (♀).

Common European species, inhabiting various biotopes from lowlands to mountains. Notes on the area of interest: one of the most common species.

***Psychodocha itoco* (Tokunaga et Komyo, 1955) (NS)**

Published records. Kroča & Ježek (2015): S 1; S 2; K 1.
**Silesia**: Z 2: 15.v.–5.vi.2008 (♂); Z 3: 26.vi.–17.vii.2008 (♂); SU 3: 10.vii.–5.ix.2007 (♂); SL 4: 7.viii.–11.ix.2008 (♂); ČV 1: 13.vi.–14.vii.2009 (♂); SKM OR 1: 12.vi.–14.vii.2009 (♂). **Moravia:** S 1: 21.vi.–18.vii.2011 (♂); S 2: 12.v.–2.vi.2008 (♂); K 1: 23.viii.–3.x.2011 (♂).

Species described from Japan. Extent of distribution is poorly known, documented only from Japan, Finland and the Czech Republic. Notes on the area of interest: quite rare species of montane brooks, rarely found in cutoff streams. Nationally scarce in the Czech Republic.

***Psychodula minuta* (Banks, 1894)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 1; S 2; K 1.
**Silesia**: Z 3: 15.v.–5.vi.2008 (♀); SU 3: 7.viii.–9.x.2007 (♀); SL 2: 15.v.–26.vi.2008 (♂♀), 7.viii.–11.ix.2008 (♂); SL 4: 5.vi.–26.vi.2008 (♀), 7.viii.–11.ix.2008 (♂); SL 5: 26.v.–21.viii.2009 (♀), 7.ix.–6.x.2009 (♀); SL 6: 3.vii.–17.vii.2016 (♀); ČV 1: 22.iv.–12.v.2009 (♀), 13.vi.–6.x.2009 (♀); ČV 3: 22.iv.–12.v.2009 (♂♀), 7.ix.–6.x.2009 (♂); KR: 12.v.–26.v.2009 (♀), 12.vi.–21.viii.2009 (♂♀); MOR: 18.i.–2.xi.2011 (♂♀), 4.iv.–23.iv.2012 (♂); SKM OR 1: 22.iv.–7.ix.2009 (♂♀), 18.iv.–21.v.2011 (♀), 20.vi.–19.vii.2011 (♀); SKM OR 2: 22.iv.–12.v.2009 (♀), 30.iii.–30.v.2011 (♀); SKM OR 3: 18.iv.–20.v.2011 (♀), 20.vi.–19.vii.2011 (♀), 24.viii.–29.ix.2011 (♀); B 1: 20.iv.–23.viii.2013 (♂♀), 4.x.–20.x.2013 (♀); B 2: 23.iv.–19.viii.2012 (♂♀), 7.ix.–2.xi.2012 (♂♀); B 3: 13.v.–9.vii.2012 (♀), 27.vii.–2.xi.2012 (♀); B 4: 13.v.–23.vi.2012 (♂); KAM–M: 22.iv.–30.x.2016 (♂♀); KAM–J: 22.iv.–30.vii.2016 (♀), 28.viii.–1.x.2016 (♀); KAM–P: 22.iv.–14.v.2016 (♀), 21.v.–12.vi.2016 (♀), 18.vi.–10.ix.2016 (♀), 15.x.–30.x.2016 (♂). **Moravia:** S 1: 21.vi.–18.vii.2011 (♀), 23.viii.–27.ix.2011 (♀); S 2: 12.v.–2.vi.2008 (♀), 16.vii.–5.viii.2008 (♀); K 1: 23.viii.–3.x.2011 (♂).

Holarctic species Common. Notes on the area of interest: one of the most common species.

***Psychomora mycophila* (Vaillant, 1988)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 3; S 2; K 3.
**Silesia**: SU 3: 5.ix.–9.x.2007 (♂); SL 4: 7.viii.–11.ix.2008 (♂); SL 5: 21.viii.–7.ix.2009 (♂); MOR: 22.viii.–29.ix.2011 (♂); SKM OR 3: 20.vi.–19.vii.2011 (♂); B 1: 27.vii.–23.viii.2013 (♂); KAM–M: 15.x.–30.x.2016 (♂); KAM–J: 1.x.–15.x.2016 (♂). **Moravia:** S 1: 23.viii.–27.ix.2011 (♂); S 2: 8.viii.–5.ix.2007 (♂), 24.vi.–16.vii.2008 (♂).

Quite rare species. Inhabits localities at a wide range of altitudes from lowlands to mountains. Larvae associated with fungi. Notes on the area of interest: quite rare species, inhabiting valleys of cutoff streams, peat bogs, spring brooks and brooks from localities at higher elevations.

***Psychomora trinodulosa* (Tonnoir, 1922)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 1; S 2; K 1; K 3.
**Silesia**: Z 3: 10.iv.–15.v.2008 (♀), 5.vi.–17.vii.2008 (♀), 11.ix.–13.xi.2008 (♀); SU 3: 10.vii.–5.ix.2007 (♂); SL 4: 5.vi.–13.xi.2008 (♂♀); SL 5: 12.vi.–14.vii.2009 (♀), 21.viii.–7.ix.2009 (♀); SL 6: 22.iv.–29.x.2016 (♂♀); ČV 1: 26.v.–14.vii.2009 (♀); ČV 2: 22.iv.–12.v.2009 (♂); ČV 3: 22.iv.–12.v.2009 (♂); KR: 14.vii.–7.ix.2009 (♀); MOR: 18.iv.–2.xi.2011 (♂♀), 4.iv.–23.iv.2012 (♂); SKM OR 1: 8.iv.–7.ix.2009 (♂♀), 18.iv.–21.v.2011 (♂), 20.vi.–19.vii.2011 (♀), 22.viii.–30.ix.2011 (♂); SKM OR 2: 22.iv.–12.v.2009 (♂), 30.iii.–30.v.2011 (♂); SKM OR 3: 18.iv.–20.v.2011 (♀), 20.vi.–19.vii.2011 (♂), 24.viii.–29.ix.2011 (♂); B 1: 20.iv.–4.x.2013 (♂), 3.xi.–22.xi.2013 (♂); B 2: 23.iv.–2.xi.2012 (♂♀); B 3: 23.iv.–2.xi.2012 (♂♀); B 4: 3.iv.–23.iv.2012 (♂), 13.v.–23.vi.2012 (♀); KAM–M: 22.iv.-14.v.2016 (♀), 21.v.–12.vi.2016 (♀), 18.vi.–1.x.2016 (♂♀); KAM–J: 22.iv.–14.v.2016 (♂), 12.vi.–15.vii.2016 (♂♀), 30.vii.–28.viii.2016 (♂♀), 10.ix.–15.x.2016 (♂); KAM–P: 22.iv.-14.v.2016 (♂). **Moravia:** S 1: 21.vi.–18.vii.2011 (♀), 23.viii.–27.ix.2011 (♀); S 2: 8.viii.–5.ix.2007 (♀), 12.v.–2.vi.2008 (♀), 24.vi.–5.viii.2008 (♀); K 3: 23.viii.–3.x.2011 (♂).

Holarctic species. Very common. Occurring at a wide range of altitudes. Notes on the area of interest: one of the most abundant species.

***Tinearia alternata* (Say, 1824)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 2
**Silesia**: Z 3: 11.ix.–13.xi.2008 (♀); SU 3: 7.viii.–5.ix.2007 (♀); SL 2: 11.ix.–13.xi.2008 (♀); SL 4: 17.vii.–11.ix.2008 (♀); SL 5: 14.vii.–6.x.2009 (♀); ČV 2: 22.iv.–12.v.2009 (♀); KR: 14.vii.–6.x.2009 (♀); MOR: 20.vi.–18.vii.2011 (♀), 22.viii.–2.xi.2011 (♀); SKM OR 1: 12.v.–7.ix.2009 (♀), 18.iv.–21.v.2011 (♀), 22.viii.–30.ix.2011 (♀); SKM OR 2: 8.iv.–22.iv.2009 (♀); SKM OR 3: 20.vi.–19.vii.2011 (♀), 24.viii.–29.ix.2011 (♀); B 1: 20.iv.–10.v.2013 (♂), 4.x.–22.xi.2013 (♂♀); B 2: 13.v.–27.vii.2012 (♀), 19.viii.–10.x.2012 (♀); B 4: 7.ix.–10.x.2012 (♀); KAM–M: 12.vi.–15.vii.2016 (♀), 30.vii.–13.viii.2016 (♀), 28.viii.–10.ix.2016 (♀); KAM–J: 14.v.–21.v.2016 (♀); KAM–P: 18.vi.–2.vii.2016 (♀). **Moravia:** S 1: 23.viii.–27.ix.2011 (♂); S 2: 8.viii.–5.ix.2007 (♀).

Cosmopolitan and euryvalent species. Notes on the area of interest: common species.

***Tinearia lativentris* (Berdén, 1952)**

Published records. Kroča & Ježek (2015): SKM OR 3.
**Silesia**: MOR: 22.viii.–29.ix.2011 (♀); SKM OR 1: 12.vi.–21.viii.2009 (♀); B 2: 27.vii.–19.viii.2012 (♀); B 3: 10.x.–2.xi.2012 (♀).

Holarctic species. Common. Inhabits similar biotopes as *T. alternata*. Notes on the area of interest: rare species, found only near brooks and cutoff streams in the Podbeskydská pahorkatina Upland.

***Ypsydocha setigera* (Tonnoir, 1922)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 3; S 1; S 2; K 1.
**Silesia**: Z 3: 5.vi.–26.vi.2008 (♀), 17.vii.–7.viii.2008 (♀); SU 3: 12.vi.–7.viii.2007 (♂♀); SL 4: 17.vii.–11.ix.2008 (♂♀); SL 5: 14.vii.–21.viii.2009 (♂); ČV 3: 22.iv.–12.v.2009 (♂); MOR: 18.iv.–21.v.2011 (♀), 18.vii.–22.viii.2011 (♀); SKM OR 1: 22.iv.–12.v.2009 (♀), 26.v.–7.ix.2009 (♀), 18.iv.–21.v.2011 (♀), 20.vi.–19.vii.2011 (♀), 22.viii.–30.ix.2011 (♀); SKM OR 2: 30.iii.–21.v.2011 (♂♀); SKM OR 3: 18.iv.–19.vii.2011 (♀), 24.viii.–29.ix.2011 (♀); B 1: 10.v.–13.vii.2013 (♂♀); B 2: 23.iv.–23.vi.2012 (♂♀), 7.ix.–10.x.2012 (♂); B 3: 13.v.–9.vii.2012 (♂♀); KAM–P: 15.x.-30.x.2016 (♀). **Moravia:** K 1: 23.viii.–3.x.2011 (♀).

Holarctic species. Very common. Notes on the area of interest: abundant species.

***Berdeniella kocii* Ježek, 2006 (NS)**

**Silesia**: SU 3: 10.vii.–7.viii.2007 (♂); SKM OR 1: 12.v.–26.v.2009 (♂), 14.vii.–7.ix.2009 (♂); SKM OR 2: 22.iv.–12.v.2009 (♂); SKM OR 3: 18.iv.–20.v.2011 (♂), 24.viii.–29.ix.2011 (♂); B 2: 23.iv.–13.v.2012 (♂), 27.vii.–19.viii.2012 (♂). **Moravia:** S 2: 8.viii.–5.ix.2007 (♂).

Rare species, known only from Czech Republic and Slovakia. Distribution in the Czech Republic: Jeseníky PLA (Ježek 2006b), Jizerské hory Mts. including Frýdlant region (Ježek *et al.* 2008) and Bílé Karpaty PLA (Ježek & Omelková 2012). Notes on the area of interest: rare species of upland cutoff streams and highland brooks. *B. kocii* probably has two generations per year at sites within the Podbeskydská pahorkatina Upland; however, this needs to be verified. Nationally scarce in the Czech Republic.

***Berdeniella manicata* (Tonnoir, 1920)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3
**Silesia**: SKM OR 1: 18.iv.–21.v.2011 (♂); SKM OR 2: 12.v.–26.v.2009 (♂).

Locally abundant European species. Notes on the area of interest: very rare species inhabiting cutoff streams in area of the braided river.

***Berdeniella matthesi* (Jung, 1954)**

Published records. Kroča & Ježek (2015): S 1; K 1; K 2.
**Silesia**: Z 1: 15.v.–26.vi.2008 (♂); Z 2: 15.v.–5.vi.2008 (♂); SU 3: 17.iv.–12.vi.2007 (♂); SL 1: 15.v.–26.vi.2008 (♂); SL 2: 15.v.–5.vi.2008 (♂♀); SL 4: 15.v.–5.vi.2008 (♂); SL 5: 12.v.–26.v.2009 (♂); ČV 1: 22.iv.–26.v.2009 (♂); ČV 2: 22.iv.–12.v.2009 (♂). **Moravia:** S 2: 12.v.–2.vi.2008 (♂).

European species. Locally abundant. Notes on the area of interest: quite rare species, inhabiting environs of spring brooks, brooks and rivers of hilly and montane biotopes.

***Berdeniella stavniensis* (Krek, 1969)**

**Silesia**: Z 3: 15.v.–5.vi.2008 (♂).

European species. Apparently not common. Distribution in the Czech Republic: Western Bohemia (Ježek 2003, Ježek *et al*. 2018); Jizerské hory PLA (Ježek 2003); Orlické hory PLA (Ježek 2003, Ježek & Hájek 2007); Železné hory PLA (Ježek 2003); Kralický Sněžník Mts. (Ježek 2003); Jeseníky PLA (Ježek 2003); Rychlebské hory Mts. (Ježek 2003). Notes on the area of interest: one of the rarest species, only one montane site is known (brook).

***Berdeniella unispinosa* (Tonnoir, 1919)**

Published records. Kroča & Ježek (2015): SKM OR 1; K 1; K 2; K 3.
**Silesia**: Z 1: 5.vi.–11.ix.2008 (♂); Z 2: 26.vi.–7.viii.2008 (♂); Z 3: 15.v.–7.viii.2008 (♂); SU 3: 15.v.–5.ix.2007 (♂); SL 1: 26.vi.–11.ix.2008 (♂); SL 2: 5.vi.–11.ix.2008 (♂); SL 4: 15.v.–11.ix.2008 (♂); SL 5: 26.v.–21.viii.2009 (♂); SL 6: 3.vii.–17.vii.2016 (♂); KR: 26.v.–12.vi.2009 (♂); MOR: 21.v.–20.vi.2011 (♂); SKM OR 3: 20.vi.–19.vii.2011 (♂).

European species, southern boundary of distribution along the Balkans and Apennines. Notes on the area of interest: quite common species, inhabiting montane spring brooks, brooks and rivers, but also found in cutoff streams of the River Morávka.

***Clytocerus* (*Boreoclytocerus*) *dalii* (Eaton, 1893)**

Published records. Kroča & Ježek (2015): S 2; K 1.
**Silesia**: SKM OR 2: 18.iv.–21.v.2011 (♂); KAM–P: 22.iv.–14.v.2016 (♂), 30.vii.–13.viii.2016 (♂). **Moravia**: S 2: 12.v.–2.vi.2008 (♂).

Rather rare European species. Prefers moor drainages, fens and flooded meadows. Notes on the area of interest: scarce species of montane spring brooks and brooks, cutoff streams of the River Morávka and upland brooklets.

***Clytocerus* (*Boreoclytocerus*) *longicorniculatus* Krek, 1987 (NS)**

Published records. Kroča & Ježek (2015): SKM OR 1
**Silesia**: Z 3: 15.v.–5.vi.2008 (♂); SU 3: 15.v.–5.ix.2007 (♂); SL 6: 22.iv.–11.vi.2016 (♂), 17.vii.–27.viii.2016 (♂); MOR: 18.iv.–22.viii.2011 (♂); SKM OR 1: 22.iv.–26.v.2009 (♂),12.vi.–7.ix.2009 (♂), 20.vi.–19.vii.2011 (♂); SKM OR 2: 22.iv.–12.v.2009 (♂), 18.iv.–21.v.2011 (♂); SKM OR 3: 24.viii.–29.ix.2011 (♂); B 1..: 20.iv.–12.vi.2013 (♂), 27.vii.–23.viii.2013 (♂); B 3: 23.iv.–13.v.2012 (♂); KAM–M: 15.iv.–12.vi.2016 (♂), 18.vi.–1.x.2016 (♂); KAM–J: 15.iv.–30.vii.2016 (♂), 28.viii.–1.x.2016 (♂), 15.x.–30.x.2016 (♂); KAM–P: 22.iv.–14.v.2016 (♂), 12.vi.–18.vi.2016 (♂). **Moravia:** S 1: 21.vi.–18.vii.2011 (♂); S 2: 12.v.–2.vi.2008 (♂).

Species known from Bosnia and Herzegovina, the Czech Republic and Poland, but distribution is likely to be substantially greater in view of possible misidentification in the past (*C. ocellaris*). Both species have the same habitat requirements. Notes on the area of interest: abundant species of the upland part of the Morávka river basin and montane habitats. Nationally scarce in the Czech Republic.

***Clytocerus* (*Boreoclytocerus*) *ocellaris* (Meigen, 1804)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 3; S 1; S 2; K 3.
**Silesia**: SU 3: 15.v.–12.vi.2007 (♂), 10.vii.–7.viii.2007 (♂); SL 6: 22.iv.–11.vi.2016 (♂), 17.vii.–27.viii.2016 (♂); ČV 1: 26.v.–13.vi.2009 (♂), 21.viii.–7.ix.2009 (♂); MOR: 18.iv.–29.ix.2011 (♂); SKM OR 1: 22.iv.–26.v.2009 (♂),12.vi.–7.ix.2009 (♂), 18.iv.–21.v.2011 (♂), 20.vi.–19.vii.2011 (♂); SKM OR 2: 22.iv.–26.v.2009 (♂), 30.iii.–21.v.2011 (♂); SKM OR 3: 20.vi.–19.vii.2011 (♂); B 2: 13.v.–23.vi.2012 (♂); B 3: 13.v.–23.vi.2012 (♂); KAM–M: 15.iv.–1.x.2016 (♂); KAM–J: 15.iv.–13.viii.2016 (♂), 28.viii.–15.x.2016 (♂); KAM–P: 22.iv.–14.v.2016 (♂), 12.vi.–18.vi.2016 (♂), 2.vii.–15.vii.2016 (♂), 13.viii.–1.x.2016 (♂). **Moravia:** S 1: 23.viii.–27.ix.2011 (♂); S 2: 8.viii.–5.ix.2007 (♂), 12.v.–2.vi.2008 (♂).

Common European species. Known largely from central and western Europe (including the British Isles), with limits of distribution in Finland, Lithuania, the Apennines and the Balkan Peninsula (Ježek & Omelková 2012). Larvae inhabit springs, small streams and the littoral zone of water reservoirs. Notes on the area of interest: abundant species, distribution similar to C. longicorniculatus.

***Clytocerus (Boreoclytocerus) rivosus* (Tonnoir, 1919) (CR)**

Published records. Kroča & Ježek (2015): SKM OR 2
**Silesia**: SKM OR 3: 20.vi.–19.vii.2011 (♂); KAM–M: 12.vi.–1.x.2016 (♂); KAM–J: 18.vi.–2.vii.2016 (♂), 30.vii.–13.viii.2016 (♂), 28.viii.–1.x.2016 (♂).

Relatively rare species of western and central Europe. Notes on the area of interest: scarce species of cutoff streams and upland peat bog habitats. Critically endangered in the Czech Republic.

***Clytocerus* (*Boreoclytocerus*) *splendidus* Ježek & Hájek, 2007 (NS)**

Published records. Kroča & Ježek (2015): SKM OR 1
**Silesia**: SU 3: 12.vi.–10.vii.2007 (♂), 7.viii.–5.ix.2007 (♂); SL 6: 18.vi.–3.vii.2016 (♂), 17.vii.–14.viii.2016 (♂); MOR: 18.iv.–29.ix.2011 (♂); SKM OR 1: 12.vi.–7.ix.2009 (♂), 20.vi.–19.vii.2011 (♂); SKM OR 2: 18.iv.–21.v.2011 (♂); B 1: 20.iv.–10.v.2013 (♂); B 3: 23.iv.–13.v.2012 (♂); KAM–M: 15.iv.–14.v.2016 (♂), 21.v.–1.x.2016 (♂); KAM–J: 15.iv.–14.v.2016 (♂), 21.v.–15.vii.2016 (♂), 30.vii.–13.viii.2016 (♂), 28.viii.–1.x.2016 (♂); KAM–P: 22.iv.–14.v.2016 (♂), 21.v.–18.vi.2016 (♂). **Moravia:** S 2: 12.v.–2.vi.2008 (♂).

Rare species. Known only from Belgium, the Czech Republic, Poland and Slovakia (for new information see Ježek, Grootaert *et al.* 2018). Inhabits lakes, forest ponds, wetlands, rivers, streams and wet meadows. Notes on the area of interest: rather abundant species of mainly submontane parts of the Morávka river basin, rarely of montane habitats. Nationally scarce in the Czech Republic.

***Clytocerus (Boreoclytocerus) tetracorniculatus* Wagner, 1977 (CR)**

**Silesia**: KAM–M: 22.iv.–14.v.2016 (♂), 2.vii.–30.vii.2016 (♂).

Very rare species. Collected so far only in Germany, the Czech Republic and Finland. Distribution in the Czech Republic: Železné hory PLA (Ježek 2003) and Bílé Karpaty PLA (Ježek & Omelková 2007, 2012; Omelková *et al.* 2008). Inhabits slope treeless tufa-forming fens, marshes and inundated meadows. Notes on the area of interest: a very rare species registered only in an upland peat bog (Kamenec NM). Critically endangered in the Czech Republic.

***Parabazarella subneglecta* (Tonnoir, 1922)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 3; S 1
**Silesia**: ČV 3: 22.iv.–12.v.2009 (♂); SKM OR 1: 12.v.–26.v.2009 (♂), 18.iv.–21.v.2011 (♂), 22.viii.–30.ix.2011 (♂); SKM OR 2: 22.iv.–12.v.2009 (♂), 30.iii.–21.v.2011 (♂); SKM OR 3: 18.iv.–20.v.2011 (♂), 20.vi.–19.vii.2011 (♂), 24.viii.–29.ix.2011 (♂); B 1: 20.iv –10.v.2013 (♂); B 2: 3.iv.–13.v.2012 (♂), 19.viii.–7.ix.2012 (♂).

Rare species of western and central Europe. Prefers wet moss cushions, springs and streams. Notes on the area of interest: quite scarce species, inhabits cutoff streams and floodplain brooks, rarely highland biotopes.

***Pericoma* (*Pachypericoma*) *blandula* Eaton, 1893**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; K 3.
**Silesia**: SL 4: 10.iv.–15.v.2008 (♂); ČV 2: 12.v.–26.v.2009 (♂), 14.vii.–21.viii.2009 (♂); ČV 3: 22.iv.–12.v.2009

(♂), 14.vii.–21.viii.2009 (♂); KR: 22.iv.–26.v.2009 (♂), 12.vi–21.viii.2009 (♂); MOR: 18.iv.–29.ix.2011 (♂); SKM OR 1: 22.iv.–7.ix.2009 (♂), 18.iv.–21.v.2011 (♂), 20.vi.–19.vii.2011 (♂), 22.viii.–30.ix.2011 (♂); SKM OR 2: 22.iv.–26.v.2009 (♂), 30.iii.–30.v.2011 (♂); SKM OR 3: 18.iv.–20.v.2011 (♂), 20.vi.–19.vii.2011 (♂), 24.viii.–29.ix.2011 (♂); B 1: 20.iv.–22.vi.2013 (♂), 27.vii.–13.ix.2013 (♂), 4.x.–20.x.2013 (♂); B 2: 23.iv.–10.x.2012 (♂); B 3: 23.iv.–10.x.2012 (♂); B 4: 23.iv.–23.vi.2012 (♂); KAM–P: 22.iv.–12.vi.2016 (♂), 18.vi.–15.vii.2016 (♂), 28.viii.–10.ix.2016 (♂).

European species. Common. Penetrates to Transcaucasia and North Africa. Prefers wet moss cover in shaded or non-shaded habitats at various altitudes. Notes on the area of interest: abundant species.

***Pericoma* (*Pachypericoma*) *fallax* Eaton, 1893**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3
**Silesia**: ČV 2: 22.iv.–12.v.2009 (♂); KR: 22.iv.–12.v.2009 (♂); SKM OR 1: 22.iv.–7.ix.2009 (♂), 18.iv.–21.v.2011 (♂); SKM OR 2: 22.iv.–26.v.2009 (♂), 18.iv.–30.v.2011 (♂); SKM OR 3: 18.iv.–20.v.2011 (♂), 20.vi.–19.vii.2011 (♂), 24.viii.–29.ix.2011 (♂); B 1: 20.iv.–22.vi.2013 (♂), 13.vii.–23.viii.2013 (♂); B 2: 23.iv.–10.x.2012 (♂); B 3: 23.iv.–23.vi.2012 (♂), 9.vii.–10.x.2012 (♂); B 4: 23.iv.–23.vi.2012 (♂); KAM–P: 13.viii.-28.viii.2016 (♂).

European, western Siberian and Caucasian species. Moss-dwelling, generally common in shaded and unshaded habitats. Notes on the area of interest: abundant species in upland parts.

***Pericoma* (*Pachypericoma*) *nielseni* Kvifte, 2010 (NS)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2
**Silesia**: SL 6: 22.v.–11.vi.2016 (♂); SKM OR 2: 12.v.–26.v.2009 (♂); B 2: 7.ix.–10.x.2012 (♂); B 3: 9.vii.–27.vii.2012 (♂); B 4: 23.iv.–13.v.2012 (♂).

European species. Prefers similar habitats as *Pericoma (P.) fallax*. Notes on the area of interest: quite rare species mainly found in cutoff streams and the upland Bahno brook, in one case also in the montane narrow river floodplain.

***Pericoma* (*Pericoma*) *exquisita* Eaton, 1893 (EN)**

**Silesia**: SKM OR 1: 22.iv.–14.vii.2009 (♂), 18.iv.–21.v.2011 (♂); SKM OR 2: 22.iv–26.v.2009 (♂), 18.iv.–21.v.2011 (♂); SKM OR 3: 18.iv.–19.vii.2011 (♂), 24.viii.–29.ix.2011 (♂); B 1: 20.iv.–10.v.2013 (♂); B 2: 23.vi.–9.vii.2012 (♂), 10.x.–2.xi.2012 (♂); B 3: 23.iv.–13.v.2012 (♂), 9.vii.–27.vii.2012 (♂); B 4: 23.iv.–13.v.2012 (♂).

Widespread in Europe, North Africa and Transcaucasia. Distribution in the Czech Republic: Kokořínsko PLA (Ježek 2006c) and Bílé Karpaty PLA (Ježek & Omelková 2007, 2012). Moss-dwelling species inhabiting forest springs, wells and brooks. Notes on the area of interest: quite common species, distribution is similar to *P. nielseni* and *P. blandula*. Endangered in the Czech Republic.

***Pericoma* (*Pericoma*) *pseudoexquisita* Tonnoir, 1940**

Published records. Kroča & Ježek (2015): SKM OR 3
**Silesia**: KR: 8.iv.–22.iv.2009 (♂); MOR: 22.viii.–29.ix.2011 (♂); SKM OR 2: 8.iv.–22.iv.2009 (♂); SKM OR 3: 24.viii.–29.ix.2011 (♂); B 2: 9.vii.–27.vii.2012 (♂).

Abundant European species. Notes on the area of interest: rare species of spring brooks, brooklets and cutoff streams.

***Pneumia crispi* (Freeman, 1953) (EN)**

Published records. Kroča & Ježek (2015): S 1; S 2
**Silesia**: KR: 14.vii.–6.x.2009 (♂). **Moravia:** S 1: 23.viii.–27.ix.2011 (♂); S 2: 8.viii.–5.ix.2007 (♂).

Locally abundant European species. Prefers springs and streams with decaying organic matter. Notes on the area of interest: rare species of spring brooks and highland brooklets. Endangered in the Czech Republic.

***Pneumia cubitospinosa* (Jung, 1954) (EN)**

Published records. Kroča & Ježek (2015): S 1
**Moravia:** S 2: 12.v.–2.vi.2008 (♂).

European species. Found in highlands and mountains, prefers similar habitats as the *Pneumia crispi*. Notes on the area of interest: one of the rarest species, known only from two sites (Salajka NNR). Endangered in the Czech Republic.

***Pneumia fonticola* (Szabó, 1960) NS**

**Silesia**: SKM OR 1: 22.iv.–12.v.2009 (♂); KAM–M: 28.viii.–10.ix.2016 (♂).

European species. Notes on the area of interest: one of the rarest species, collected near a cutoff stream of the River Morávka and peat bogs in Kamenec NM. New species for the Czech Republic. Nationally scarce.

***Pneumia gracilis gracilis* (Eaton, 1893)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2
**Silesia**: SL 6: 15.v.–22.v.2016 (♂); ČV 1: 22.iv.–12.v.2009 (♂); ČV 2: 12.v.–26.v.2009 (♂); ČV 3: 22.iv.–12.v.2009 (♂); KR: 22.iv.–12.v.2009 (♂); SKM OR 1: 12.v.–26.v.2009 (♂), 21.viii.–7.ix.2009 (♂), 18.iv.–21.v.2011 (♂), 22.viii.–30.ix.2011 (♂); SKM OR 2: 22.iv.–12.v.2009 (♂), 30.iii.–21.v.2011 (♂); SKM OR 3: 18.iv.–20.v.2011 (♂), 24.viii.–29.ix.2011 (♂); B 1: 20.iv.–12.vi.2013 (♂), 27.vii.–13.ix.2013 (♂); B 2: 19.viii.–7.ix.2012 (♂); B 3: 23.iv.–23.vi.2012 (♂), 19.viii.–7.ix.2012 (♂); B 4: 19.viii.–10.x.2012 (♂); KAM–M: 14.v.–21.v.2016 (♂); KAM–P: 22.iv.–14.v.2016 (♂), 21.v.–18.vi.2016 (♂), 13.viii.–1.x.2016 (♂).

Nominotypical subspecies occurring in Europe and the Caucasus. Inhabits forest slope springs, streams and wetland brooks. Notes on the area of interest: common species of various habitats in hilly and montane regions.

***Pneumia kabelaki* Omelková & Ježek, 2012 (NS)**

**Silesia**: ČV 3: 7.ix.-6.x.2009 (♂).

Rare species, so far only known from the type locality - Sidonie NR (beech forest) in the Bílé Karpaty PLA (Omelková & Ježek 2012a). Notes on the area of interest: one of the rarest species, known only from Čuvný potok 3 (uplands, periodically with well-preserved pools). Nationally scarce in the Czech Republic.

***Pneumia mutua* (Eaton, 1893)**

Published records. Kroča & Ježek (2015): S 1; S 2; K 1; K 2.
**Silesia**: Z 1 – spring area: 5.vi.2008 (♂), Sw; Z 1: 15.v.–17.vii.2008 (♂); Z 2: 15.v.–5.vi.2008 (♂); Z 3: 15.v.–5.vi.2008 (♂); SU 3: 15.v.–5.ix.2007 (♂); SL 1: 15.v.–26.vi.2008 (♂); SL 2: 15.v.–26.vi.2008 (♂); SL 4: 15.v.–5.vi.2008 (♂); SL 5: 26.v.–14.vii.2009 (♂); ČV 1: 26.v.–13.vi.2009 (♂); ČV 2: 12.v.–13.vi.2009 (♂); KR: 12.v.–26.v.2009 (♂); MOR: 21.v.–20.vi.2011 (♂). **Moravia:** S 1: 21.vi.–18.vii.2011 (♂); S 2: 12.v.–2.vi.2008 (♂), 16.vii.–5.viii.2008 (♂).

European species. Inhabits moss cushions, leaf litter piles of forest streams and springs. Notes on the area of interest: common in hilly and montane areas.

***Pneumia nubila* (Meigen, 1818)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 2; K 3.
**Silesia:** SL 6: 22.iv.–15.v.2016 (♂); ČV 1: 8.iv.–22.iv.2009 (♂); ČV 2: 8.iv.–12.v.2009 (♂); ČV 3: 8.iv.–12.v.2009 (♂), 13.vi.–7.ix.2009 (♂); KR: 8.iv.–22.iv.2009 (♂); MOR: 18.iv.–21.v.2011 (♂), 20.vi.–2.xi.2011 (♂); SKM OR 1: 22.iv.–26.v.2009 (♂), 12.vi.–7.ix.2009 (♂), 18.iv.–21.v.2011 (♂), 20.vi.–19.vii.2011 (♂), 22.viii.–30.ix.2011 (♂); SKM OR 2: 8.iv.–26.v.2009 (♂), 30.iii.–30.v.2011 (♂); SKM OR 3: 18.iv.–19.vii.2011 (♂), 24.viii.–29.ix.2011 (♂); B 1: 20.iv.–10.v.2013 (♂); B 2: 23.iv.–7.ix.2012 (♂); B 3: 23.iv.–10.x.2012 (♂); B 4: 3.iv.–13.v.2012 (♂); KAM–M: 15.iv.–30.x.2016 (♂); KAM–J: 15.iv.–15.vii.2016 (♂), 28.viii.–30.x.2016 (♂); KAM–P: 15.iv.–1.x.2016 (♂), 15.x.–13.xi.2016 (♂). **Moravia:** S 2: 12.v.–2.vi.2008 (♂).

Very common and abundant European species. Known also from the Canary Islands. Inhabits various biotopes. Notes on the area of interest: one of the most common species.

***Pneumia palustris* (Meigen, 1804)**

**Silesia:** ČV 3: 22.iv.–12.v.2009 (♂); KR: 12.v.–26.v.2009 (♂); KAM–M: 22.iv.–14.v.2016 (♂).

Widespread European species. Also registered from Turkey and the Canary Islands. Biotopes with decaying organic matter suitable for larval development. Notes on the area of interest: rare species of spring brooks, highland brooklets and upland peat bogs.

***Pneumia pilularia* (Tonnoir, 1940)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 3; S 1; K 1.
**Silesia**: Z 3: 10.iv.–15.v.2008 (♂); SL 1: 10.iv.–15.v.2008 (♂); SL 2: 10.iv.–15.v.2008 (♂); SL 4: 10.iv.–5.vi.2008 (♂); SL 5: 12.v.–26.v.2009 (♂); ČV 1: 22.iv.–12.v.2009 (♂); ČV 2: 22.iv.–12.v.2009 (♂); ČV 3: 22.iv.–26.v.2009 (♂); KR: 22.iv.–26.v.2009 (♂); MOR: 29.ix.–2.xi.2011 (♂); SKM OR 1: 22.iv.–12.v.2009 (♂), 18.iv.–21.v.2011 (♂), 22.viii.–30.ix.2011 (♂); SKM OR 2: 8.iv.–26.v.2009 (♂), 30.iii.–21.v.2011 (♂); SKM OR 3: 18.iv.–20.v.2011

(♂), 24.viii.–29.ix.2011 (♂); B 1: 20.iv.–10.v.2013 (♂), 4.x.–20.x.2013 (♂); B 2: 23.iv.–13.v.2012 (♂), 7.ix.–2.xi.2012 (♂); B 3: 23.iv.–13.v.2012 (♂), 10.x.–2.xi.2012 (♂); KAM–M: 15.iv.–14.v.2016 (♂); KAM–P: 22.iv.-14.v.2016 (♂). **Moravia:** S 2: 12.v.–2.vi.2008 (♂).

European species. Known also from Central Asia (Tajikistan) and North Africa. Inhabits spring areas and brooks from lowlands to mountains with a preference for bryophytes in running water biotopes. Notes on the area of interest: one of the most common species.

***Pneumia plumicornis* (Tonnoir, 1922)**

Published records. Kroča & Ježek (2015): S 2
**Silesia**: Z 1: 11.ix.–13.xi.2008 (♂); Z 2: 11.ix.–13.xi.2008 (♂); SU 3: 5.ix.–5.xi.2007 (♂); SL 2: 11.ix.–13.xi.2008 (♂); SL 4: 7.viii.–13.xi.2008 (♂). **Moravia:** S 1: 23.viii.–27.ix.2011 (♂).

Locally common European species of small montane streams, pools and wet meadows. Notes on the area of interest: quite rare species of mountains and highlands (spring brooks and brooks).

***Pneumia rivularis* (Berdén, 1954) (EN)**

Published records. Kroča & Ježek (2015): SKM OR 2
**Silesia**: SL 1: 5.vi.–26.vi.2008 (♂); SL 2: 15.v.–26.vi.2008 (♂); SL 4: 15.v.–5.vi.2008 (♂); SL 6: 18.vi.–3.vii.2016 (♂); ČV 1: 13.vi.–14.vii.2009 (♂); MOR: 18.iv.–20.vi.2011 (♂); SKM OR 2: 12.v.–26.v.2009 (♂); B 3: 13.v.–23.vi.2012 (♂); KAM–P: 21.v.–12.vi.2016 (♂).

Rare species with a wide area of distribution, from the United Kingdom to the Russian Far East, southern frontier delimited by Germany, the Czech Republic and Slovakia. Inhabits water reservoirs, ponds, forest spring areas, swamps, wet meadows, brooks and streams. Notes on the area of interest: scarce species in various biotopes and altitudes. Endangered in the Czech Republic.

***Pneumia stammeri* (Jung, 1956) (EN)**

Published records. Kroča & Ježek (2015): S 1; S 2; K 1.
**Silesia**: SU 3: 15.v.–12.vi.2007 (♂); KR: 12.v.–26.v.2009 (♂). **Moravia:** S 1: 21.vi.–18.vii.2011 (♂); S 2: 12.v.–2.vi.2008 (♂).

Rare European species. Prefers habitats with tufa formation and presence of brophytes in small montane streams and wetland flows. Notes on the area of interest: scarce species of hilly and montane spring brooks and brooks. Endangered in the Czech Republic.

***Pneumia trivialis* (Eaton, 1893)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; SKM OR 3; S 1; S 2; K 2; K 3.
**Silesia**: Z 3: 26.vi.–17.vii.2008 (♂); SU 3: 17.iv.–15.v.2007 (♂), 12.vi.–10.vii.2007 (♂); SL 1: 15.v.–26.vi.2008 (♂), 17.vii.–11.ix.2008 (♂); SL 2: 26.vi.–17.vii.2008 (♂); SL 4: 10.iv.–15.v.2008 (♂), 5.vi.–26.vi.2008 (♂), 7.viii.–11.ix.2008 (♂); SL 5: 12.vi.–14.vii.2009 (♂); SL 6: 15.v.–11.vi.2016 (♂), 3.vii.–17.vii.2016 (♂), 14.viii.–10.ix.2016 (♂); ČV 1: 22.iv.–12.v.2009 (♂), 13.vi.–21.viii.2009 (♂); ČV 2: 8.iv.–26.v.2009 (♂), 7.ix.-6.x.2009 (♂); ČV 3: 22.iv.–26.v.2009 (♂), 14.vii.–21.viii.2009 (♂), 7.ix.–6.x.2009 (♂); KR: 8.iv.–26.v.2009 (♂), 12.vi.–7.ix.2009 (♂); MOR: 18.iv.–2.xi.2011 (♂); SKM OR 1: 22.iv.–7.ix.2009 (♂), 18.iv.–21.v.2011 (♂), 20.vi.–19.vii.2011 (♂), 22.viii.–30.ix.2011 (♂); SKM OR 2: 8.iv.–26.v.2009 (♂), 30.iii.–30.v.2011 (♂); SKM OR 3: 18.iv.–19.vii.2011 (♂), 24.viii.–29.ix.2011 (♂); B 1: 20.iv.–20.x.2013 (♂); B 2: 3.iv.–2.xi.2012 (♂); B 3: 23.iv.–10.x.2012 (♂); B 4: 23.iv.–13.v.2012 (♂); KAM–M: 15.iv.–14.v.2016 (♂), 21.v.–12.vi.2016 (♂), 18.vi.–30.x.2016 (♂); KAM–J: 15.iv.–14.v.2016 (♂), 18.vi.–15.vii.2016 (♂), 10.ix.–1.x.2016 (♂); KAM–P: 15.iv.–15.x.2016 (♂). **Moravia:** S 1: 23.viii.–27.ix.2011 (♂); S 2: 8.viii.–5.ix.2007 (♂), 12.v.–2.vi.2008 (♂).

Very common European species in various biotopes and altitudes. Notes on the area of interest: one of the most frequent species in the area monitored.

***Saraiella rotunda* (Krek, 1970) (CR)**

Published records. Kroča & Ježek (2015): S 1; S 2; K 2.
**Silesia**: Z 1: 15.v.–13.xi.2008 (♂); SL 1: 10.iv.–15.v.2008 (♂), 7.viii.–13.xi.2008 (♂); SL 4: 15.v.–5.vi.2008 (♂), 7.viii.–13.xi.2008 (♂). **Moravia:** S 1: 21.vi.–18.vii.2011 (♂); S 2: 8.viii.–5.ix.2007 (♂), 12.v.–2.vi.2008 (♂); K 1: 23.viii.–3.x.2011 (♂).

Submediterranean montane species. Notes on the area of interest: rare species of mountains and highlands (spring brooks and brooks). Critically endangered in the Czech Republic.

***Szaboiella hibernica* (Tonnor, 1940) (CR)**

Published records. Kroča & Ježek (2015): K 1; K 2.
**Silesia**: Z 1: 26.vi.–7.viii.2008 (♂); SL 6: 22.v.-11.vi.2016 (♂). **Moravia:** K 1: 23.viii.–3.x.2011 (♂).

European species, also found in Transcaucasia (Abkhazia) - an environment of montane streams, avalanche grooves, wet rocks, forest springs and wetland habitats. Notes on the area of interest: rare species of montane stream valleys. Critically endangered in the Czech Republic.

***Tonnoiriella nigricauda* (Tonnoir, 1919) (CR)**

**Silesia**: SL 6: 22.iv.–11.vi.2016 (♂); MOR: 18.iv.–21.v.2011 (♂), 18.vii.–22.viii.2011 (♂); SKM OR 1: 12.v.–26.v.2009 (♂); SKM OR 3: 18.iv.–20.v.2011 (♂); B 2: 13.v.–9.vii.2012 (♂); KAM–M: 15.iv.–1.x.2016 (♂), 15.x.–30.x.2016 (♂); KAM–J: 15.iv.–1.x.2016 (♂); KAM–P: 22.iv.-14.v.2016 (♂), 2.vii.–15.vii.2016 (♂).

Relative rare European species. Distribution in the Czech Republic: Vráž nr. Písek (Ježek *et al.* 2013), Western Bohemia (Ježek 1996, 1999, Ježek *et al*. 2018), Kokořínsko PLA (Ježek 2006c), Jizerské hory Mts. and Frýdlant region (Ježek *et al.* 2008), Orlické hory PLA (Ježek 1996, Ježek & Hájek 2007), Jeseníky PLA (Ježek 1996, 2006b), Pálava UBR (Ježek 1998). Notes on the area of interest: quite frequent montane species, mainly from the upland area of the Morávka river basin and Slavíč 6 (montane river). Critically endangered in the Czech Republic.

***Tonnoiriella sieberti* Wagner, 1993 (EN)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2.
**Silesia**: KR: 12.v.–26.v.2009 (♂); SKM OR 1: 22.iv.–14.vii.2009 (♂), 18.iv.–21.v.2011 (♂), 20.vi.–19.vii.2011 (♂), 22.viii.–30.ix.2011 (♂); SKM OR 2: 22.iv.–12.v.2009 (♂), 18.iv.–21.v.2011 (♂); SKM OR 3: 24.viii.–29.ix.2011 (♂); B 1: 13.ix.–4.x.2013 (♂); B 2: 7.ix.–10.x.2012 (♂); B 4: 23.iv.–13.v.2012 (♂); KAM–M: 15.iv.–26.xi.2016 (♂); KAM–J: 22.iv.–12.vi.2016 (♂), 10.ix.–1.x.2016 (♂); KAM–P: 22.iv.–14.v.2016 (♂), 2.vii.–30.vii.2016 (♂), 28.viii.–10.ix.2016 (♂).

Rare species of central and southeastern Europe, known also from Syria. Inhabits wetlands, including waterlogged and irrigated agricultural lands, hillside springs and small streams with organic matter. Notes on the area of interest: quite frequent species of upland areas of the Morávka river basin. Endangered in the Czech Republic.

***Ulomyia annulata annulata* (Tonnoir, 1919)**

**Silesia**: KAM–M: 15.iv.–12.vi.2016 (♂), 18.vi.–1.x.2016 (♂); KAM–J: 15.iv.–22.iv.2016 (♂), 18.vi.–30.vii.2016 (♂).

Common European species, also known from western Siberia. Records from the Czech Republic: Prague (Ježek 1995), Kokořínsko PLA (Ježek 2006c), Vráž nr. Písek (Ježek *et al.* 2013), Western Bohemia (Ježek 1999, Ježek *et al*. 2018), Jizerské hory PLA (Ježek *et al.* 2008), Orlické hory PLA (Ježek & Hájek 2007), Jeseníky PLA (Ježek 2006b), Podyjí NP (Ježek *et al.* 2005), Bílé Karpaty PLA (Ježek & Omelková 2012). Inhabits sites with decaying organic matter, including ponds, water reservoirs, swamps, rills and wet meadows. Notes on the area of interest: found only in peat bogs (KAM-M) and peat pools (KAM-J) in Kamenec NM, where it is abundant.

***Ulomyia cognata* (Eaton, 1893)**

Published records. Kroča & Ježek (2015): SKM OR 1; S 1; S 2; K 1; K 3.
**Silesia**: Z 1: 15.v.–17.vii.2008(♂), 11.ix.–13.xi.2008 (♂); Z 2: 15.v.–5.vi.2008 (♂); Z 3: 10.iv.–5.vi.2008 (♂), 17.vii.–7.viii.2008 (♂); SU 3: 17.iv.–12.vi.2007 (♂), 10.vii.–5.ix.2007 (♂); SL 1: 10.iv.–26.vi.2008 (♂), 7.viii.–11.ix.2008 (♂); SL 2: 10.iv.–26.vi.2008 (♂), 11.ix.–13.xi.2008 (♂); SL 4: 10.iv.–17.vii.2008 (♂), 7.viii.–13.xi.2008 (♂); SL 5: 12.v.–6.x.2009 (♂), 23.iv.–12.v.2012 (♂); SL 6: 22.iv.–11.vi.2016 (♂), 30.vii.–27.viii.2016 (♂); ČV 1: 22.iv.–13.vi.2009 (♂), 14.vii.–7.ix.2009 (♂); ČV 2: 22.iv.–13.vi.2009 (♂), 14.vii.–7.ix.2009 (♂); ČV 3: 22.iv.–26.v.2009 (♂); KR: 22.iv.–26.v.2009 (♂), 14.vii.–21.viii.2009 (♂); MOR: 18.iv.–20.vi.2011 (♂), 18.vii.–29.ix.2011 (♂); SKM OR 1: 14.vii.–7.ix.2009 (♂), 18.iv.–21.v.2011 (♂); SKM OR 2: 22.iv.–12.v.2009 (♂), 18.iv.–21.v.2011 (♂); SKM OR 3: 18.iv.–20.v.2011 (♂); KAM–M: 22.iv.–14.v.2016 (♂), 13.viii.–28.viii.2016 (♂); KAM–J: 18.vi.–2.vii.2016 (♂); KAM–P: 22.iv.–18.vi.2016 (♂). **Moravia:** S 1: 23.viii.–27.ix.2011 (♂); S 2: 8.viii.–5.ix.2007 (♂), 12.v.–2.vi.2008 (♂); K 3: 23.viii.–3.x.2011 (♂).

European species, common from lowlands to mountains. Notes on the area of interest: one of the most frequent species in the area monitored.

***Ulomyia fuliginosa* (Meigen, 1804)**

Published records. Kroča & Ježek (2015): SKM OR 1; SKM OR 2; K 1; K 3.
**Silesia**: Z 3: 15.v.–5.vi.2008 (♂); SU 3: 7.viii.–5.ix.2007 (♂); SL 2: 7.viii.–11.ix.2008 (♂); SL 6: 15.v.–11.vi.2016 (♂), 3.vii.–30.vii.2016 (♂), 27.viii.–10.ix.2016 (♂); ČV 1: 22.iv.–13.vi.2009 (♂), 14.vii.–21.viii.2009 (♂); ČV 2:

8.iv.–12.v.2009 (♂), 26.v.–13.vi.2009 (♂), 14.vii.–21.viii.2009 (♂); ČV 3: 22.iv.–26.v.2009 (♂), 21.viii.–6.x.2009 (♂); KR: 22.iv.–26.v.2009 (♂), 14.vii.–6.x.2009 (♂); MOR: 18.iv.–2.xi.2011 (♂); SKM OR 1: 22.iv.–12.vi.2009 (♂), 14.vii.–7.ix.2009 (♂), 18.iv.–21.v.2011 (♂), 22.viii.–30.ix.2011 (♂); SKM OR 2: 22.iv.–26.v.2009 (♂), 30.iii.–30.v.2011 (♂); SKM OR 3: 18.iv.–19.vii.2011 (♂); B 1: 20.iv.–12.vi.2013 (♂); B 2: 23.iv.–13.v.2012 (♂), 27.vii.–19.viii.2012 (♂); B 3: 23.iv.–9.vii.2012 (♂), 7.ix.–10.x.2012 (♂); B 4: 23.iv.–23.vi.2012 (♂), 19.viii.–7.ix.2012 (♂), 10.x.–2.xi.2012 (♂); KAM–M: 15.iv.–2.vii.2016 (♂), 15.vii.–1.x.2016 (♂), 15.x.–30.x.2016 (♂); KAM–J: 15.iv.–14.v.2016 (♂), 12.vi.–18.vi.2016 (♂); KAM–P: 15.iv.–2.vii.2016 (♂), 13.viii.–1.x.2016 (♂).

Most common species in Europe, distributed from lowlands to mountains. Notes on the area of interest: one of the most frequent species of the area monitored.

***Ulomyia vaseki* Ježek, 2002 (EN)**

Published records. Kroča & Ježek (2015): K 1.
**Silesia**: Z 1: 26.vi.–11.ix.2008 (♂); SU 3: 10.vii.–7.viii.2007 (♂); SL 1: 17.vii.–7.viii.2008 (♂).

Rare. Probably Central European species (Czech Republic, Slovakia and Slovenia). Adult males were collected near forest springs and small streams in montane areas. Notes on the area of interest: scarce species of montane spring brooks and brooklets. Endangered in the Czech Republic.

## Summary of the results and discussion

In total, we surveyed 29 sites, collecting 113 species of 42 genera. Including the findings of *Taramormia tatrica*, *Berdeniella vimmeri* and *Pericoma pingarestica* recorded by Kroča & Ježek 2015, this brings the number of species in the Moravskoslezské Beskydy Mts. and the Podbeskydská pahorkatina Uplands to 116 from 42 genera. These results indicate a significantly higher species number in our study localities than most previous faunistic surveys in the Czech Republic (see Table 1).

Table 1: Moth fly species richness in other monitoring areas in the Czech Republic

| Study area | No. of species | No. of localities | publications |
|---|---|---|---|
| Bílé Karpaty PLA | 109 | 78 | Ježek & Omelková 2012, Omelková & Ježek 2017 |
| Western Bohemia | 96 | 266 | Ježek *et al.* 2018 |
| Jeseníky Mts. | 78 | 226 | Ježek 2006b |
| Jizerské hory Mts. and Frýdlant region | 78 | 79 | Ježek *et al.* 2008 |
| Podyjí NP | 64 | 25 | Ježek *et al.* 2005 |
| Pálava UBR | 51 | 41 | Ježek 1999b |
| the industrial region of Duchcov and the environs of Bílina | 47 | 7 | Ježek & Barták 2000 |
| the subalpine zone of the Krkonoše NP | 23 | 15 | Ježek *et al.* 2010 |

Altogether, 32 of the species recorded in our monitoring area are mentioned in the national Red List of threatened invertebrates (Ježek 2005), with 19 classified as critically endangered (CR), 9 as endangered (EN) and 4 as vulnerable (VU), with an additional 23 species in a suggested nationally scarce (NS) category (Table 2). The recording of *Katamormia bezzii* represents the species' first finding outside of the Apennines. Our finding of *Panimerus goodi* in the Kamenec NM is only the second time the species has been recorded outside of its type locality at Pollardstown Fen (the largest spring-fed fen in Ireland) in Co Kildare (Ireland). Likewise, our findings of *Peripsychoda zbytka* (Zbytka NR, between Pohoří and České Meziříčí

Table 2: Moth fly species richness in the monitoring area. Annotation: Dα = α-diversity; Dβ = β-diversity; (%) = share of Czech moth fly fauna (179 spp.); Threatened species = according to Ježek 2005; CR, EN, VU = IUCN conservation status; SS = sum of all threatened species at a locality; SA = sum of all threatened species at all localities in a specified region of the area of interest; * = incomplete season; SKM OR 1 sum / SKM OR 2 sum = number of species for the 2009 / 2011 seasons.

| Locality | Dα (%) | Dβ (%) | THREATENED SPECIES | | | | |
|---|---|---|---|---|---|---|---|
| | | | CR | EN | VU | SS | SA (CR;EN;VU) |
| Z 1 | 17 (9.6) | 34 (19.1) | 3 | 1 | 1 | 5 | 7 (5;1;1) |
| Z 2 | 9 (5.1) | | 0 | 0 | 0 | 0 | |
| Z 3 | 25 (14.0) | | 2 | 0 | 0 | 2 | |
| SU 3. | 38 (21.3) | --- | 3 | 3 | 1 | 7 | --- |
| SL 1 | 18 (10.1) | 58 (32.6) | 3 | 2 | 0 | 5 | 14 (9;4;1) |
| SL 2 | 28 (15.7) | | 3 | 1 | 0 | 4 | |
| SL 4 | 32 (18.0) | | 3 | 1 | 1 | 5 | |
| SL 5 | 24 (13.5) | | 1 | 0 | 0 | 1 | |
| SL 6 | 39 (21.9) | | 7 | 2 | 1 | 10 | |
| Č 1. | 29 (16.3) | 41 (23.0) | 1 | 1 | 0 | 2 | 3 (2;1;0) |
| Č 2. | 23 (12.9) | | 1 | 0 | 0 | 1 | |
| Č 3. | 26 (14.6) | | 0 | 0 | 0 | 0 | |
| KR | 33 (18.5) | --- | 2 | 3 | 0 | 5 | --- |
| MOR | 39 (21.9) | --- | 2 | 2 | 1 | 5 | --- |
| SKM OR 1 2009 | 61 (34.3) | 82 (46.1) | 9 | 3 | 2 | 14 | 20 (12;4;4) |
| SKM OR 1 2011 | 52 (29.2) | | 5 | 3 | 0 | 8 | |
| SKM OR 1 sum | 71 (39.9) | | 10 | 3 | 2 | 15 | |
| SKM OR 2 2009* | 34 (19.1) | | 0 | 3 | 1 | 4 | |
| SKM OR 2 2011 | 49 (27.5) | | 3 | 4 | 0 | 7 | |
| SKM OR 2 sum | 54 (30.3) | | 3 | 4 | 1 | 8 | |
| SKM OR 3 2011 | 56 (31.5) | | 6 | 3 | 1 | 10 | |
| B 1. | 33 (18.5) | 56 (31.2) | 0 | 2 | 0 | 2 | 12 (6;3;3) |
| B 2. | 46 (25.8) | | 4 | 2 | 1 | 7 | |
| B 3. | 39 (21.9) | | 3 | 2 | 1 | 6 | |
| B 4. | 25 (14.0) | | 1 | 2 | 0 | 3 | |
| KAM-M | 49 (27.5) | 59 (33.1) | 8 | 2 | 0 | 10 | 13 (10;3;0) |
| KAM-J | 33 (18.5) | | 3 | 1 | 0 | 4 | |
| KAM-P | 39 (21.9) | | 4 | 2 | 0 | 6 | |
| S 1 | 40 (22.5) | 48 (27) | 4 | 3 | 0 | 7 | 8 (5;3;0) |
| S 2 | 43 (24.2) | | 5 | 3 | 0 | 8 | |
| K 1. | 29 (16.3) | 42 (23.6) | 4 | 2 | 0 | 6 | 8 (5;2;1) |
| K 2. | 13 (7.3) | | 2 | 0 | 0 | 2 | |
| K 3. | 27 (15.2) | | 2 | 0 | 1 | 3 | |
| TOTAL | 116 (65.2) | | 19 | 9 | 4 | --- | 32 |

floodplains and fen meadows in meanders of the Zlatý potok brook) and *Pneumia kabelaki* (Bílé Karpaty PLA, Sidonie NR, beech forest near Vlárský průsmyk pass) also represent second findings outside of their type locality. *Jungiella (P.) janiki* has only been collected at five sites previously (Bílé Karpaty Mts. near the Slovakian frontier), all close together and of similar

character. *Katamormia bezzii*, *Panimerus goodi* and *P. fonticola* are all new species to the Czech Republic, bringing the total number of moth fly species in the Czech Republic to 179. Other significant findings in this paper include the finding of *Sycorax tonnoiri* (first finding in the Czech Carpathians); *Panimerus maynei* (second area of occurrence in the Czech Republic); and *Yomormia furva*, *Threticus incurvus*, *Apsycha pusilla*, *Chodopsycha buxtoni*, *Clytocerus (Boreoclytocerus) tetracorniculatus* and *Pericoma (Pericoma) exquisita* (third area of occurrence in the Czech Republic). The finding of *Jungiella (Jungiella) soleata* confirms the species' historical occurrence in the study region (Ježek 1987, Kroča & Ježek 2015).

Common species found at the highest number of localities included *Psychoda phalaenoides* (29 sites), *Logima satchelli* (28), *Psycha grisescens* (28), *Psychodocha gemina* (28), *Logima albipennis* (27), *Pneumia trivialis* (26) and *Chodopsycha lobata* (25). Alpha diversity was highest in cutoff streams of the River Morávka in the Skalická Morávka NPP (SKM OR 1, 2009, 61 species [71 including 2011]; SKM OR 3, 56 species; SKM OR 2, 2011, 49 species). Other species rich sites include the Kamenec swamps (49 spp.), Bahno 2 (46 spp.), Salajka 2 (43 spp.) and Salajka 1 (40 spp.), along with Savíč 6, Morávka (cutoff stream), Bahno 2 and Kamenec (brook), each with 39 species. The lowest number of species was found along the small montane streams at Zimný 2 (9 spp.), Kněhyňka 2 (13 spp.), Zimný 1 (17 spp.) and Slavíč 1 (18 spp.). For further information, see Table 2.

Beta diversity values were high as regards Czech moth fly fauna, with highest values recorded at Skalická Morávka NNM with 82 species (46% of the Czech fauna), followed by Kamenec NM (59 spp.) and Bahno brook (56 spp.). Exceptional sites were also recorded at higher altitudes, including the River Slavíč (58 spp / 5 sites) and Salajka NNR (48 spp. / 2 sites) amongst others (see Table 2). These figures are all higher than those recorded for sites within the Bílé Karpaty PLA (Ježek & Omelková 2012), the richest territory published to date, whose richest sites include the Bílé potoky NR (42 spp.), Vápenky (40 spp.), Čertoryje NNR (38 spp.), Záhumenice NM (37 spp.), Machová NR (35 spp.) and Jazevčí (34 spp.).

## Conclusion

The moth fly fauna in our monitoring area was exceptionally high in species richness and rare species. These results correspond with previously published findings for stoneflies (Plecoptera) (Bojková & Špaček 2006; Bojková & Kroča 2011; Kroča 2010 a,b,c, 2011) and caddisflies (Trichoptera) (Komzák *et al.* 2006; Komzák & Kroča 2011, 2018 a,b) from the same area. Nevertheless, these remain partial results, which will be complemented by other, as yet unprocessed, localities and habitats in the future, possibly increasing the values for this extrodinary area still further.

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