

Moth flies (Diptera, Psychodidae, Psychodinae) of two selected underestimated Bohemian protected areas (Czech Republic)

JAN JEŽEK ¹ & JOZEF OBOŇA ^{2*}

¹Department of Entomology, National Museum, Cirkusová 1740, 193 00 Praha 9 – Horní Počernice, Czech Republic, ²Department of Ecology, Faculty of Humanities and Natural Sciences, University of Prešov, 17. novembra 1, 081 16 Prešov, Slovakia

Abstract

The biodiversity of non-biting moth flies (Diptera, Psychodidae) from the areas of Blaník protected landscape area (PLA) and Labské pískovce PLA is presented. A total of 62 species are recorded. 41 species co-occurred at both locations. Of these species, four are considered as critically endangered (CR) (namely: *Parajungiella ellisi* (Withers, 1987); *Parajungiella pseudolongicornis* (Wagner, 1975); *Clytocyclus (Boreoclytocyclus) rivosus* (Tonnoir, 1919); *Tonnoiriella nigricauda* (Tonnoir, 1919)). In Blaník PLA 15 unique species were recorded (which did not occur in Labské pískovce PLA). Two of these species are considered as CR (namely: *Parajungiella serbica* (Krek, 1985); *Psycmera integella* (Jung, 1956)). In Labské pískovce PLA 6 unique species were recorded, with one considered as CR: *Oomormia andrenipes* (Strobl, 1910).

Keywords: Psychodinae, biodiversity, faunistics, distribution, zoogeography, threatened species, conservation potential, Blaník PLA, Labské pískovce PLA, Europe, Palaearctic Region.

Introduction

The family Psychodidae (Diptera, Nematocera) has more than 3 000 described species (Pape et al. 2011) in the world. Moth flies (Figure 1) are holometabolic insects whose life cycle takes place in aquatic, semi-aquatic or terrestrial ecosystems. Larvae develop in a variety of microhabitats, ranging from standing or flowing freshwater (water reservoirs, brooks, waterfalls, spring areas) or sewage to moist soil near tree roots, rotting tree trunks, and domestic microhabitats such as bathroom and kitchen drains. Adults tend to rest in protected and relatively moist microhabitats, such as under the bark and in tree holes, on the underside of leaves, in rock crevices, burrows, stables, caves and on the inside walls of buildings (e.g. Withers 1989).



Figure 1. Psychodidae, adults. Photos by František Mucha.

In contrast to peerless Prodrromus of moth flies of Slovakia (Oboňa & Ježek 2014) with a summarization of all known localities incl. grid mapping codes in sense of Ehrendorfer & Hamann (1965), Pruner & Míka (1996), Zelený (1972), Czech Republic has only many spread papers on Psychodidae in different journals (e.g.: Ježek 2003, 2004, 2006a,b; Ježek & Hájek 2007; Ježek et al. 2018, 2024a,b,c,d; Ježek & Omelková 2012; Kroča & Ježek 2015, 2019, 2022; Omelková & Ježek 2012b, 2017) without finished prodromus and this account follows, unfortunately, this trend.

This study aim is to present published new and unpublished faunal data with the contribution of biodiversity research on moth flies (Diptera: Psychodidae) of Blaník PLA and Labské pískovce PLA (Czech Republic) (for more entomological details see “*Entomologie Labských pískovců*“ in Blažej (2024)).

Material and methods

A prime mover of the biodiversity research project was the cooperation between the management of the Blaník PLA and Labské pískovce PLA with the Department of Entomology of the National Museum, Prague. The general natural history of the whole studied areas was characterized mainly by AOPK ČR, SCHKO Blaník (2007), Čech (1940), Ložek et al. (2005), Němec (2007), Roháček (2017) as well as about Labské pískovce PLA e.g. Bauer et al. (2022), Elznicová et al. (2022), Feyfar (1981). Klumpar (1998) and Nevrlý & Širlo (2002).

Most of presented material was recorded using Malaise traps emptied in a period of three weeks; generally, only the date on which the samples were removed is frequently

* Corresponding author: J. Oboňa. Email: jozef.obona@unipo.sk

quoted in the list of material examined in the Results section, or individual collecting by sweep netting during many individual excursions financed by the projects (2008, 2009). The traps were emptied mainly by the team of P. Chvojka, J. Ježek and J. Macek (all National Museum, Prague). The names of collectors of individual activities are always mentioned in the text. The captured moth flies were preserved in 70% ethanol in the field and subsequently cleared in chloralphenol, treated in xylol, determined by the first author and mounted on glass slides in Canada balsam. The voucher specimens are deposited in the National Museum, Prague, Czech Republic (NMPC). Slides were numbered in the NMPC by INS = Inventory Slide Number of the family Psychodidae (see Tkoč et al. 2014). Most of the recent data comes from a total of 7 localities: Blaník PLA 4 and Labské pískovce PLA 3. Coordinates: the places of trap installation were often changed locally by tens of metres during the quoted seasons in the same space, in contrast to the mentioned single GPS. Detailed information was included and supplied with the codes of fields in the faunistic and floristic grid mapping system for Central Europe (Ehrendorfer & Hamann 1965; Zelený 1972; Pruner & Míka 1996).

Small parallel material was collected in the northern Hercynicum of the Czech Republic (frontier of České Švýcarsko NP territory and margins of the Labské pískovce Sandstones area in the past (e.g. Srbská Kamenice, Brtníky) and published by Ježek et al. (2021). However, this study is based only on comparison of two quite different protected areas of CZ. The results are documented by 596 slides of moth flies (Blaník PLA 396, Labské pískovce PLA 200).

Identification keys used: Vaillant (1971–1983), Szabó (1983), Withers (1989) and numerous unnamed original papers by different authors with descriptions of new species. The nomenclature is modified from Vaillant (1971–1983) and Wagner (1990, 2019), using the classifications of e.g. Ježek & van Harten (2005, 2009), Ježek (2007), Omelková & Ježek (2012a,b,c), Oboňa & Ježek (2014), Kvifte (2014) and Kroča & Ježek (2015, 2019, 2022).

The list of species is structured as follows:

Published locality: Summarizes previously published records from a given locality (if such data are available; if not, this section is omitted).

Unpublished localities: Summarizes species occurrences from both Blaník PLA and Labské pískovce PLA. Each entry includes the locality name and a brief description (with a reference number), the sex of the collected specimens, date of collection, sampling method, collector's initials, and the INS number.

Comments: Provides a brief note on the species' distribution and, where available, additional information on its ecology.

Abbreviations used:

♂ – male, ♀ – female, C – Chvojka, J – Ježek, M – Macek leg., INS – NMPC slide number; PLA – protected landscape area; NM = Nature Monument = nature conservation area; NR = nature reserve; PPT = particularly preserved territory. Threatened species: CR = critically endangered, EN = endangered, NS = nationally scarce; species not assessed in the Czech Red List (Ježek 2005).

Collecting areas:

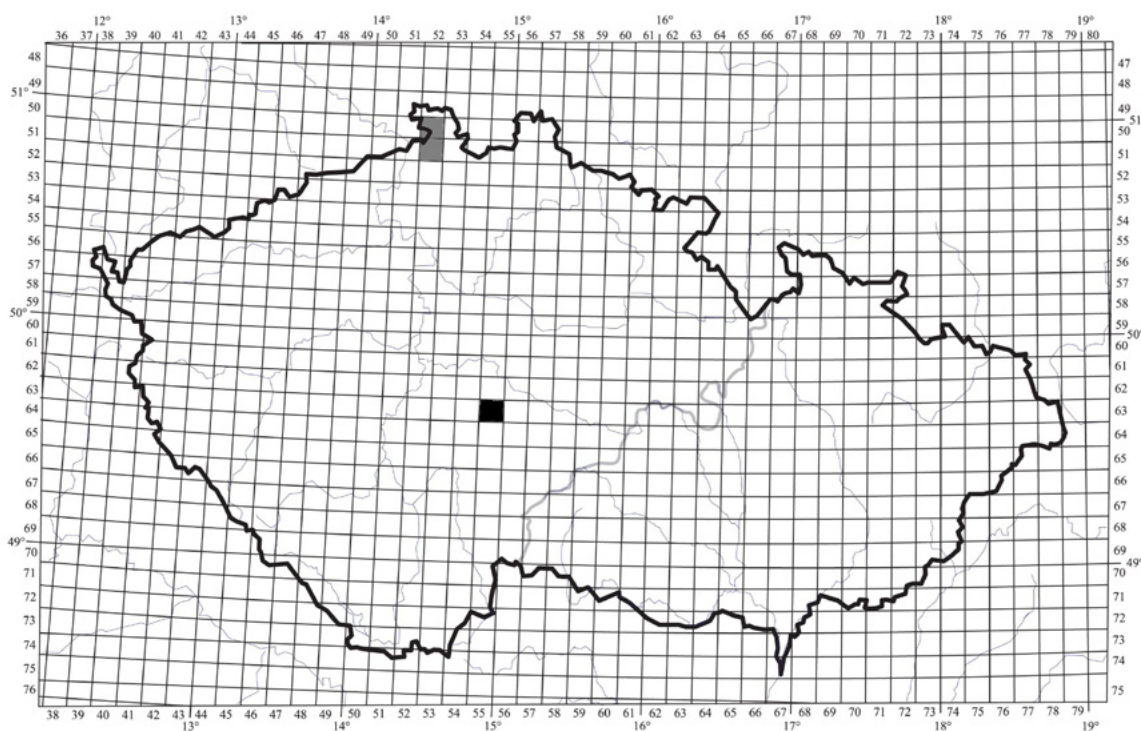


Figure 2. Map of faunistic squares in the Czech Republic. Created by Jozef Oboňa (black square represents Blaník PLA and grey squares represent Labské pískovce PLA).

(Figures 3 – 9)

1. Blanice NR (Figure 3), Březina and Smrštov (lonely houses) – banks of the flow nr. Louňovice pod Blaníkem, Blaník PLA, 49°39'01.8"N 14°51'10.3"E; 49°37'02.8"N 14°50'21.9"E, 6355, 396 m a.s.l. Veg.: *Tilia*, *Picea*, *Alnus*, *Salix*, *Ranunculus*, *Callitriche*, *Batrachium*.

2. Částrovické rybníky ponds NM (Figure 4) env. Vracovice, Částrovický potok brook, meadow, Blaník PLA, 49°39'14.6"N 14°54'48.0"E, 6355, 475 m a.s.l. Veg.: *Alnus*, *Betula*, *Salix*, *Carex*, *Menyanthes*, *Eriophorum*, *Equisetum*, *Sparganium*, *Dactylorhiza*.

3. Louky u Kunratic PPT, 0.6 km NNW of Kunratic (Figure 8), Stříbrný potok brook, Labské pískovce PLA, 50°49'25.0"N 14°25'01.0"E, 5152, 345 m a.s.l. Veg.: *Alnus*, *Tilia*, *Salix*, *Corylus* and grass plants of swampy meadows.

4. Louňov pond NM env. Načeradec, Blaník PLA, 49°36'34.2"N 14°52'17.6"E, 6355, 455 m a.s.l. Veg.: *Alnus*, *Salix*, *Phragmites*, *Carex*, *Potentilla*, *Potamogeton*.



Figure 3. Blanice NR (Blaník PLA). Alternation of alluvial meadows, small flows, swamps and bank shrubs or trees is characteristic for the hilly Blanice area near Louňovice pod Blaníkem. Photo by Martin Klaudys.



Figure 4. Částrovické rybníky ponds NM (Blaník PLA). The littoral zone with swampy vegetation is suitable for development of 51 registered species of moth flies, which also inhabit the banks of Částrovický potok brook and neighbouring wet meadows. Photo by Martin Klaudys.

5. Na Tisce PPT, 1.2 km SE of Tisá (Figure 9), Labské pískovce PLA, 50°46'39.0"N 14°02'22.0"E, 5250, 504 m a.s.l. Veg.: *Alnus*, *Crataegus*, *Salix*, *Betula*, *Sorbus*, *Acer*, *Malus*, *Rosa*, *Rubus*.

6. Olšový potok brook NR (Figures 5 and 7) near Petrovice u Chabařovic x Rájec, alluvium and meanders (Figure 6), Labské pískovce PLA, 50°49'09.0"N 13°59'29.0"E, and 50°48'55.0"N 14°00'05.0"E, 5250, 415 and 425 m a.s.l. Veg.: *Salix*, *Betula*, *Alnus*, *Meum*, *Calluna*, *Juncus*, *Trollius*, *Eriophorum*, *Scirpus*.

7. Podlesí NR env. Býkovice, Býkovický potok brook, Velký and Malý Býkovický rybník ponds, meadow, swamps, Blaník PLA, 49°37'32.9"N 14°52'19.7"E, 6355, 474 – 486 m a.s.l. Veg.: *Salix*, *Alnus*, *Sphagnum*, *Scorzonera*, *Menyanthes*, *Dactylorhiza*, *Parnassia*, *Sedum*, *Coleanthus*, *Drosera*, *Eriophorum*, *Viola*, *Tephrosia*, *Carex*, *Juniperus*, *Caltha*, *Scirpus*, *Cirsium*, *Briza*, *Holcus*, *Typha*, *Iris*, *Equisetum*, *Sparganium*.



Figure 5. Meanders of Olšový potok brook NR (Labské pískovce PLA) – habitat of many species of aquatic insects. Photo by Petr Bauer.



Figure 6. Alluvium of Olšový potok brook NR in the edge of meadow swamps and forest growth – habitat of many nematoceros flies (spring view). Photo by Petr Bauer.



Figure 7. Characteristic landscape scenery of the vicinity of Olšový potok brook NR in autumn view. Photo by Petr Bauer.



Figure 8. Exquisite area Louky u Kunratic PPT is characteristic by swampy meadow vegetation and shaded forest biotopes of Stříbrný potok brook – 38 species of moth flies was collected there. Photo by Petr Bauer.



Figure 9. Wet pastures in full bloom of *Eriophorum* SE of Tisá – locality with high species richness of arthropods. Photo by Petr Bauer.

Results and Discussion

A total of 62 species of moth flies were recorded during the research. For more details, see Table 1 and List of species.

Table 1. Overview of recorded species at individual locations and number of slides.

site number	number of recorded species, number of slides
site 1	41 spp., 99 slides
site 2	51 spp., 129 slides
site 3	38 spp., 75 slides
site 4	33 spp., 67 slides.
site 5	20 spp., 30 slides
site 6	31 spp., 95 slides
site 7	30 spp., 101 slides

List of species

Oomormia andrenipes (Strobl, 1910) – CR

Unpublished localities:

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 2.7.2009, MT, CJM, INS 17877.

Comments. Rather infrequent species known from Great Britain, Czech Republic, Slovakia, Austria, Slovenia, Bosnia and Estonia (Ježek & Omelková 2007; Oboňa et al. 2024b), critically endangered in CZ.

Jungiella (Jungiella) hygrophila Ježek, 1987

Unpublished localities:

Blaník PLA: Blanice NR, Březina (1), ♂, 6.6.2008, SW, J, INS 18891; ♂, 20.5.–9.6.2009, MT, CJM, INS 18975. Částrovické rybníky ponds NM env. Vracovice (2), ♂, 3.7.2008, meadow, MT, CJM, INS 17857; M, 9.6.2008, MT, CJM, INS 17700.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 15.6.2009, MT, CJM, INS 17962.

Comments. European species registered in Belgium, Bulgaria, Czech Republic, Poland, Slovakia and Ukraine (Ježek et al. 2021), collected mainly with *J. soleata* (Walker, 1856) and *J. valachica* (Vaillant, 1963).

Jungiella (Jungiella) soleata (Walker, 1856)

Unpublished localities:

Blaník PLA: Blanice NR, Březina (1), ♂, 6.6.2008, SW, J, INS 18889.

Comments. Common species in Europe including the British Islands (lowlands and mountains), without a penetration into the Iberian Peninsula and the Scandinavian bioregion (Ježek et al. 2021). Known as well from northern Iran.

Jungiella (Jungiella) valachica (Vaillant, 1963)

Unpublished localities:

Blaník PLA: Blanice NR, Březina (1), ♂, 6.6.2008, SW, J, INS 18890; M, 20.5.–9.6.2009, MT, CJM, INS 18966. Částrovické rybníky ponds NM env. Vracovice (2), ♂, 9.6.2008, MT, CJM, INS 17702.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 15.6.2009, MT, CJM, INS 17955.

Comments. This species is distributed in Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Great Britain, Poland, Romania, Serbia, Slovakia, Switzerland, Ukraine (Ježek et al. 2020). Sometimes frequent species of lowlands and hilly regions.

Jungiella (Psychocha) hassiaca* Wagner, 1993 – NS*Published locality:**

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2) – Ježek (2009).

Comments. A very rare species known only from the original description of Hessen's holotype, Bohemia and Moravia (Ježek 2009; Ježek et al. 2021). Nationally scarce species suitable for future monitoring.

Lepiseodina rothschildi* (Eaton, 1912) – NS*Unpublished localities:**

Labské pískovce PLA: Na Tisce env. Tisá PPT (5), ♂, 27.7.2009, MT, CJM, INS 17902.

Comments. Rather rare European species, known from the British Islands, countries near the North Sea, as well as Czech Republic and Italy, now as well from Estonia and Morocco. Not recorded from the Iberian Peninsula, Scandinavia and the Balkan (Ježek et al. 2021; Jaume-Schinkel et al. 2022; Oboňa et al. 2024b; Saidoun et al. 2025). Nationally scarce species (NS).

Panimerus denticulatus* Krek, 1971*Unpublished localities:**

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2), ♂, 3.7.2008, MT, CJM, INS 17849.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 2.7.2009, MT, CJM, INS 17876.

Comments. European species registered so far in 12 countries. Known additionally as well from Transcaucasia (Azerbaijan and Georgia) – see Ježek et al. (2020, 2021). Habitats: lowland and mountain areas.

Panimerus notabilis* (Eaton, 1893)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina (1), ♂, 6.6.2008, SW, J, INS 18897; ♂, 20.5.–9.6.2009, MT, CJM, INS 18972.

Labské pískovce PLA: Na Tisce PPT env. Tisá (5), ♂, 20.8.2009, MT, CJM, INS 18062.

Comments. Common European species penetrates to countries near the North Sea incl. the British Isles, Scandinavia, Central Europe, Poland and the Balkan, now as well from Estonia; not collected on the Iberian Peninsula and in European part of Russia so far (Ježek et al. 2021; Oboňa et al. 2024b). Known from North Iran (Kandavan pass). It is the first moth fly colonizer of fresh furrows of open-cast dump machines filled by rainwater (in invasive *Typha* growths).

Parajungiella consors* (Eaton, 1893)*Unpublished localities:**

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2), ♂, 9.6.2008, MT, CJM, INS 17718.

Comments. European species, not frequent, known from Belgium, the Czech Republic, Denmark, Germany, Great Britain, Ireland and the Netherlands (Ježek et al. 2019).

Parajungiella ellisi* (Withers, 1987) – CR*Unpublished localities:**

Blaník PLA: Blanice NR, Březina (1), ♂, 20.5.–9.6.2009, MT, CJM, INS 18973. Částrovické rybníky ponds NM env. Vracovice (2), ♂, 3.7.2008, MT, CJM, INS 17858.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 15.6.2009, MT, CJM, INS 17960.

Comments. A rather rare species, described not long ago, occurring from lowlands to mountains. It inhabits banks of ponds and brooks, swamps and inundated meadows. Distribution: Austria, Great Britain, Ireland, Czech Republic, Slovakia and Russia (Siberia) – see Ježek et al. (2019). Critically endangered in CZ.

Parajungiella longicornis* (Tonnoir, 1919)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina and Smršťov (1), 2 ♂♂, 30.4.–20.5., 20.5.–9.6.2009, MT, CJM, INS 18978 and 18997; Částrovické rybníky ponds NM env. Vracovice (2), ♂, 9.6.2008, MT, CJM, INS 17709. Louňov pond NM env. Načeradec (4), 2 ♂♂, 6. and 10.6.2008, SW, J, INS 17797 and 17808. Podlesí NR env. Býkovice (7), ♂, 10.6.2008, SW, J, INS 18886.

Comments. European–West–Siberian species, very common, occurring in 18 countries from lowlands to mountains: the British Isles, countries along the North Sea, in the Scandinavian ecoregion, Central and South Europe, as well as Novosibirsk region in Russia. Now, as well from Estonia. The Iberian Peninsula is without recorded localities (Ježek et al. 2021; Oboňa et al. 2024a).

Parajungiella prikryli* Ježek, 1999 – VU*Unpublished localities:**

Blaník PLA: Blanice NR, Březina (1), ♂, 20.5.–9.6.2009, MT, CJM, INS 18981. Částrovické rybníky ponds NM env. Vracovice (2), 3 ♂♂, 9.6., 3. and 24.7. 2008, MT, CJM, INS 17719, 17820 and 17856. Louňov pond NM env. Načeradec (4), M, 6.6.2008, SW, J, INS 17810.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 15.6.2009, MT, CJM, INS 17968.

Comments. Rare species of Central Europe (lowlands and hills), not known so far outside the Czech Republic (Bohemia, Moravia) and Slovakia, vulnerable (Ježek et al. 2021).

Parajungiella pseudolongicornis* (Wagner, 1975) – CR*Unpublished localities:**

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2), ♂, 9.6.2008, MT, CJM, INS 17721. Louňov pond NM env. Načeradec (4), ♂, 6.6.2008, SW, J, INS 17811. Podlesí NR env. Býkovice (7), swamps, ♂, 10.6.2008, SW, J, INS 18887.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 15.6.2009, MT, CJM, INS 17965.

Comments. Rare species, recorded only from Great Britain, Ireland, Austria, Czech Republic, Slovakia, Serbia, Bosnia and Herzegovina (Ježek & Omelková 2012). Critically endangered in CZ.

Parajungiella serbica* (Krek, 1985) – CR*Unpublished localities:**

Blaník PLA: Blanice NR, Březina (1), ♂, 6.6.2008, SW, J, INS 18899. Částrovické rybníky ponds NM env. Vracovice (2), ♂, 9.6.2008, MT, CJM, INS 17720. Louňov pond NM env. Načeradec (4), ♂, 10.6.2008, MT, CJM, INS 17791.

Comments. Evidently, Submediterranean rare species known only from Azerbaijan, Bulgaria, Serbia, Greece, Czech Republic, Slovakia, Poland and now, as well from Estonia (Ježek et al. 2020; Oboňa et al. 2024b). It inhabits inundated meadows, swamps on pastures, small brooks and lakes with a salinity (e.g. dumps of coal-mines, Sokolov basin). Critically endangered in CZ.

Paramormia (Paramormia) polyascoidea* (Krek, 1971)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina and Smrštov (1), 2 ♂♂, 30.4.–20.5., 20.5.–9.6.2009, MT, CJM, INS 18970 and 18990; Částrovické rybníky ponds NM env. Vracovice (2), 3 ♂♂, 9.6., 24.7. and 4.9.2008, MT, CJM, INS 17685, 17708 and 17818. Podlesí NR env. Býkovice (7), 3 ♂♂, 30.4.–20.5., 1.–17.7. and 17.7.–11.8.2009, MT, CJM, INS 18946, 18955 and 19010.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 15.6.2009, MT, CJM, INS 17959. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), ♂, 20.8.2009, MT, CJM, INS 17982.

Comments. European–West–Siberian hardly rare species of lowlands and mountains: Germany, Czech Republic, Poland, Austria, Bosnia and Herzegovina, Estonia, Finland and Russia (Novosibirsk area), penetrates to the Caucasus (Abkhazia, Armenia) – see Ježek et al. (2018, 2023, 2024b).

Paramormia (Duckhousiella) ustulata* (Walker, 1856)*Unpublished localities:**

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2), 3 ♂♂, 9.6., 3. and 24.7.2008, MT, CJM, INS 17698, 17819 and 17851. Louňov pond NM env. Načeradec (4), ♀, 10.6.2008, MT, CJM, INS 17798. Podlesí NR env. Býkovice (7), 4 ♀♀, M, 20.5.–9.6., 10.6. and 1.–17.7.2009, 11.8.–2.9. and 2.9.–2.10.2009, SW, MT, J, CJM, INS 18885, 19011, 19028, 19048 and 19066.

Comments. Holarctic, a common species in European countries, moreover Canary Islands, Azores, Algeria, Morocco, Israel, Turkey, Iran, Afghanistan and the USA. Some details see Ježek & Yağci (2005), Omelková & Ježek (2012), Morelli & Biscaccianti (2021). Larvae inhabit substrates of very extreme chemical composition: mineral springs, salt works, soaks of dumps of coal-mines, poultry farms etc.

Peripsychoda auriculata* (Haliday in Curtis, 1839)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina (1), 2 ♂♂, 20.5.–9.6. and 9.6.–2.7.2009, MT, CJM, INS 18903 and 18964.

Částrovické rybníky ponds NM env. Vracovice (2), 3 ♂♂, 9.6., 3. and 24.7.2008, MT, CJM, INS 17697, 17822 and 17844. Louňov pond NM env. Načeradec (4), ♂, 10.6.2008, MT, CJM, INS 17788.

Labské pískovce PLA: Louky u Kunratic PPT (3), 3 ♂♂, 15.6.2009, SW, MT, C, CJM, INS 17958, 18033 and 18047.

Comments. European–Transcaucasian species, very common, distributed throughout Europe from lowlands to hilly regions, penetrates to Georgia (incl. Abkhazia). See Wagner (1990, 2019), Oboňa et al. (2019a,b), Morelli & Biscaccianti (2021), and Ježek et al. (2024b). Not registered on the Iberian Peninsula, eastwards of Poland and in southern Balkan. A mass occurrence sometimes show MT and YPT.

Psycmera integella* (Jung, 1956) – CR*Unpublished localities:**

Blaník PLA: Blanice NR, Březina and Smrštov (1), 4 ♂♂, 30.4.–20.5., 6.6., 20.5.–9.6. and 9.6.–2.7.2009, SW, J, MT, CJM, INS 18893, 18908, 18971 and 18993. Částrovické rybníky ponds NM env. Vracovice (2), 2 ♂♂, 9.6. and 3.7.2008, MT, CJM, INS 17699 and 17847. Louňov pond NM env. Načeradec (4), 2 ♂♂, 6. and 10.6.2008, SW, J, MT, CJM, INS 17790 and 17804. Podlesí NR env. Býkovice (7), ♂, 10.6.2008, SW, J, INS 18879.

Comments. European–West–Siberian not frequent species of lowlands and hills collected in Germany, Czech Republic, Poland, Bosnia and Herzegovina, Balkan and Russia (Novosibirsk area). See Ježek & Omelková (2012) and Ježek et al. (2019). Critically endangered in CZ.

Seoda carthusiana* (Vaillant, 1972)*Unpublished localities:**

Blaník PLA: Blanice NR, Smrštov (1), ♂, 30.4.–20.5.2009, MT, CJM, INS 18996. NM Částrovické rybníky ponds NM env. Vracovice (2), ♂, 9.6.2008, MT, CJM, INS 17712.

Comments. European local frequent species of lowlands and mountains, known from France, Germany, Czech Republic, Poland, Slovakia and Slovenia (Ježek et al. 2019, 2021, 2024b).

Seoda gressica* (Vaillant, 1972)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina (1), ♂, 20.5.–9.6.2009, MT, CJM, INS 19077. Částrovické rybníky ponds NM env. Vracovice (2), ♂, 9.6.2008, MT, CJM, INS 17717. Louňov pond NM env. Načeradec (4), 2 ♂♂, 6.6. and 10.6.2008, SW, J, MT, CJM, INS 17796 and 17809.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 2.7.2009, MT, CJM, INS 17868. Olšový potok brook NR env. Petrovice u Chabařovic x Rájec (6), ♂, 2.7.2009, MT, CJM, INS 17913.

Comments. European local frequent species of lowlands and mountains, known from France, Czech Republic, Poland, Austria and now as well from Estonia (Ježek et al. 2021; Oboňa et al. 2024b).

Seoda labeculosa* (Eaton, 1893) – EN*Unpublished localities:**

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 15.6.2009, MT, CJM, INS 17966.

Comments. Species known from France, Belgium, Denmark, the Czech Republic, the British Isles and now as well from Estonia and Russia (Ježek et al. 2019, 2021 and Oboňa et al. 2024a,b). Endangered in CZ.

Feuerborniella obscura* (Tonnoir, 1919)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina (1), 3 ♀♀, 6.6.2008, 20.5.–9.6. and 9.6.–2.7.2009, SW, J, MT, CJM, INS 18900, 18914 and 18982. Částrovické rybníky ponds NM env. Vracovice (2), ♂, 2 ♀♀, 9.6., 3.7. and 4.9.2008, MT, CJM, INS 17687, 17710 and 17861; Louňov pond NM env. Načeradec (4), ♀, 10.6.2008, MT, CJM, INS 17794. Podlesí NR env. Býkovice (7), ♀, 20.5.–9.6.2009, MT, CJM, INS 19051.

Comments. Common European species penetrates to all suitable elevations of countries near the North Sea incl. the British Isles, Central Europe, the Apennines, the Balkan Peninsula and Transcaucasia (Georgia). Some details see e.g. Ježek et al. (2020, 2021), and Kvifte & Jaume-Schinkel (2023). Immature stages live in spring areas and swamps – stones covered with wet moss.

Trichopsychoda hirtella* (Tonnoir, 1919)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina and Smrštov (1), 2 ♂♂, 3 ♀♀, 30.4.–20.5., 20.5.–9.6., 6.6., 9.6.–2.7., 2.9.–2.10.2009, SW, J, MT, CJM, INS 18894, 18902, 18934, 18967 and 18998. Částrovické rybníky ponds NM env. Vracovice (2), ♂, ♀, 24.7. and 4.9.2008, MT, CJM, INS 17666 and 17836. Louňov pond NM env. Načeradec (4), ♀, 4.9.2008, MT, CJM, INS 17754. Podlesí NR env. Býkovice (7), 4 ♀♀, 20.5.–9.6., 1.–17.7., 17.7.–11.8. and 11.8.–2.9.2009, MT, CJM, INS 18943, 19020, 19053 and 19073.

Labské pískovce PLA: Louky u Kunratic PPT (3), 2 ♀♀, 15.6. and 2.7.2009, MT, CJM, INS 17880 and 17963. Na Tisce PPT env. Tisá (5), ♀, 27.7.2009, MT, CJM, INS 17893. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), ♂, 4 ♀♀, 2.6., 2.7., 30.7. and 20.8.2009, MT, CJM, INS 17909, 17928, 17977, 18001 and 18016.

Comments. European species, common, for the present registered in countries near the North Sea incl. the British Isles, in Central Europe, known from the Apennines, Balkan and Transcaucasia (Abkhazia); now as well from Estonia and Russia (Ježek et al. 2020, 2023 and Oboňa et al. 2024a,b). Immature stages inhabit rotten plants and putrid fruits. Often a mass occurrence of adults in MT and YPT.

Threticus lucifugus* (Walker, 1856)*Unpublished localities:**

Blaník PLA: Částrovické rybníky ponds NM env.

Vracovice (2), ♂, 4.9.2008, MT, CJM, INS 17680.

Comments. Common European species, known from 12 countries, mainly along the North Sea incl. the British Isles, in Central Europe and the Apennines (Wagner 1990, 2019; Ježek et al. 2019, 2024a,b; Beuk 2021). Development of larvae is in progress on stones covered with wet moss (slow flows).

Chodopsycha lobata* (Tonnoir, 1940)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina (1), ♀, 9.6.–2.7.2009, MT, CJM, INS 18915. Částrovické rybníky ponds NM env. Vracovice (2), 4 ♀♀, 9.6., 3.7., 24.7. and 4.9.2008, MT, CJM, INS 17684, 17703, 17833 and 17848. Podlesí NR env. Býkovice (7), 2 ♂♂, 2 ♀, 20.5.–9.6., 1.–17.7., 17.7.–11.8., 11.8.–2.9.2009, MT, CJM, INS 18945, 19005, 19050 and 19068;

Labské pískovce PLA: Na Tisce PPT env. Tisá (5), ♀, 27.7.2009, MT, CJM, INS 17890. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 3 ♀♀, 30.7. and 20.8.2009, MT, CJM, INS 17988, 17996 and 18015.

Comments. Common European–Transcaucasian species known from 22 countries (lowlands, hills and mountains). The larvae are mycobiont; now collected as well in Estonia (Ježek et al. 2020; Oboňa et al. 2024b). Often a mass occurrence of adults in MT and YPT.

Copropsychoda brevicornis* (Tonnoir, 1940)*Unpublished localities:**

Blaník PLA: Blanice NR, Smrštov (1), ♂, ♀, 30.4.–20.5. and 2.9.–2.10.2009, MT, CJM, INS 18930 and 19001. Louňov pond NM env. Načeradec (4), ♀, 23.5.2008, SW, J, INS 17768. Podlesí NR env. Býkovice (7), 2 ♂♂, 3 ♀, 20.5.–9.6., 1.–17.7., 17.7.–11.8., 11.8.–2.9. and 2.9.–2.10.2009, MT, CJM, INS 18942, 19024, 19035, 19054 and 19074.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, ♀, 15.6. and 2.7.2009, MT, CJM, INS 17885 and 17973. Na Tisce PPT env. Tisá (5), ♀, 27.7.2009, MT, CJM, INS 17900. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 2 ♀♀, 30.7. and 20.8.2009, MT, CJM, INS 18006 and 18019.

Comments. Palaearctic species, registered in 15 countries, common (Bernotienė 2002; Ježek et al. 2020, 2021). Known as well from Abkhazia (Ježek et al. 2023). Immature stages inhabit mostly pastures with cattle excrements. Adults are oftentimes frequent in MT and YPT.

Logima albipennis* (Zetterstedt, 1850)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina and Smrštov (1), 5 ♀♀, 30.4.–20.5., 20.5.–9.6., 6.6.2008, 9.6.–2.7. and 2.9.–2.10.2009, SW, MT, J, CJM, INS 18895, 18918, 18936 18980 and 18999. Částrovické rybníky ponds NM env. Vracovice (2), 4 ♀♀, 9.6., 3.7., 24.7. and 4.9.2008, MT, CJM, INS 17689, 17714, 17832 and 17859. Louňov pond NM env. Načeradec (4), 4 ♀♀, 23.5., 10.6., 4.9. and 6.11.2008, MT,

CJM, INS 17760, 17774, 17785 and 17801. Podlesí NR env. Býkovice (7), 5 ♀♀, 20.5.–9.6., 1.–17.7., 17.7.–11.8., 11.8.–2.9. and 2.9.–2.10.2009, MT, CJM, INS 18951, 19019, 19037, 19058 and 19070.

Labské pískovce PLA: Louky u Kunratic PPT (3), 2 ♀♀, 15.6. and 2.7.2009, MT, CJM, INS 17882 and 17975. Na Tisce PPT env. Tisá (5), 2 ♀♀, 27.7. and 20.8.2009, MT, CJM, INS 17897 and 18063. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 4 ♀♀, 2.6., 30.7. and 20.8.2009, MT, CJM, INS 17932, 17991, 18009 and 18031.

Comments. Cosmopolitan species, eurybiont, very common, known as well from Armenia, Azerbaijan and Georgia (incl Abkhazia) – Ježek & Yağci (2005), Ježek et al. (2021, 2023). Adults are oftentimes frequent in MT and YPT, attracted by blue light traps. Saprophagous larvae. Known as agents of human myiasis and pseudomyiasis (Mathison et al. 2024).

Logima erminea (Eaton, 1893)

Unpublished localities:

Blaník PLA: Blanice NR, Březina and Smrštov (1), ♂, ♀, 9.6.–2.7., 2.9.–2.10.2009, MT, CJM, INS 18912 and 18927. Částrovické rybníky ponds NM env. Vracovice (2), ♂, 2 ♀♀, 9.6., 24.7. and 4.9.2008, MT, CJM, INS 17679, 17716 and 17835. Louňov pond NM env. Načeradec (4), 2 ♀♀, 4.9. and 6.11.2008, MT, CJM, INS 17757 and 17786. Podlesí NR env. Býkovice (7), 3 ♀♀, 1.–17.7., 11.8.–2.9. and 2.9.–2.10.2009, MT, CJM, INS 19017, 19029 and 19075.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♀, 15.6.2009, MT, CJM, INS 17970. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), ♂, ♀, 30.7. and 20.8.2009, MT, CJM, INS 18007 and 18030.

Comments. Frequent Palaearctic species, known as well from the Caucasus (Georgia incl. Abkhazia) – Oboňa et al. (2019b), Ježek et al. (2021, 2023). Collected by MT in different altitudes, registered in caves, however bionomy is generally almost unknown.

Logima satchelli (Quate, 1955)

Unpublished localities:

Blaník PLA: Blanice NR, Březina and Smrštov (1), 2 ♂♂, 2 ♀♀, 10.–30.4., 30.4.–20.5., 20.5.–9.6. and 9.6.–2.7.2009, MT, CJM, INS 18916, 18979, 19000 and 19046. Částrovické rybníky ponds NM env. Vracovice (2), ♂, 2 ♀♀, 9.6., 3.7. and 4.9.2008, MT, CJM, INS 17690, 17724 and 17860. Louňov pond NM env. Načeradec (4), 2 ♀♀, 23.5. and 6.11.2008, MT, CJM, INS 17776 and 17784. Podlesí NR env. Býkovice (7), ♂, 2 ♀♀, 20.5.–9.6. a 1.–17.7., 11.8.–2.9.2009, MT, CJM, INS 19018, 19059 and 19076.

Labské pískovce PLA: Louky u Kunratic PPT (3), 3 ♀♀, 20.4., 15.6. and 2.7.2009, MT, CJM, INS 17883, 17949 and 17974. Na Tisce PPT env. Tisá (5), ♀, 27.7.2009, MT, CJM, INS 17898. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 5 ♀♀, 2.6., 2.7., 21.7., 30.7. and 20.8. 2009, SW, C, MT, CJM, INS 17920, 17931, 17989, 18020 and 18044.

Comments. Holarctic common species, eurybiont (Ježek & Yağci 2005; Ježek et al. 2018, 2020; Gibernau & Albre 2022). Collected regularly in quite different altitudes by Malaise traps, rotate, emergent, light (as well blue), yellow pan traps. Now collected as well in Estonia (Oboňa et al. 2024b).

Logima zetterstedti Ježek, 1983

Unpublished localities:

Blaník PLA: Blanice NR, Smrštov (1), ♀, 2.9.–2.10.2009, MT, CJM, INS 18935. Částrovické rybníky ponds NM env. Vracovice (2), ♀, 9.6.2008, MT, CJM, INS 17715. Louňov pond NM env. Načeradec (4), 3 ♀♀, 23.5., 10.6. and 4.9.2008, MT, CJM, INS 17764, 17773 and 17802. Podlesí NR env. Býkovice (7), ♀, 30.4.–20.5.2009, MT, CJM, INS 18960.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♀, 2.7.2009, MT, CJM, INS 17884.

Comments. Common European–West–Siberian species, registered on islands of the Atlantic Ocean, Pacific Ocean and between the East China Sea and the Philippine Sea. Very local frequent, known from all suitable elevations. Some details see Ježek & Yağci (2005), Ježek et al. (2021). Adults are sometimes found in sheaths of *Arum maculatum* which they pollinate (e.g. Laina et al. 2022). Sometimes, become rich samples from MT and YPT. Saprobiont larvae.

Psycha grisescens (Tonnoir, 1922)

Unpublished localities:

Blaník PLA: Blanice NR, Smrštov (1), ♂, 2 ♀♀, 10.4.–30.4., 30.4.–20.5. and 2.9.–2.10.2009, MT, CJM, INS 18928, 19002 and 19040. Částrovické rybníky ponds NM env. Vracovice (2), 2 ♀♀, 3.7. and 4.9.2008, MT, CJM, INS 17683 and 17863. Louňov pond NM env. Načeradec (4), 2 ♀♀, 10.6. and 6.11.2008, MT, CJM, INS 17783 and 17792. Podlesí NR env. Býkovice (7), ♂, 3 ♀♀, 20.5.–9.6., 1.–17.7. a 17.7.–11.8. and 2.9.–2.10.2009, MT, CJM, INS 18948, 19009, 19034 and 19052.

Labské pískovce PLA: Louky u Kunratic PPT (3), 2 ♂♂, ♀, 20.4., 14.5. and 15.6.2009, MT, CJM, INS 17945, 17947 and 17971. Na Tisce PPT env. Tisá (5), ♀, 27.7.2009, MT, CJM, INS 17894. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 3 ♀♀, 2.7., 30.7. and 20.8.2009, MT, CJM, INS 17916, 18008 and 18025.

Comments. European species (21 countries), very common, distributed in a stripe from the British Isles to Lithuania and Central Anatolia, Transcaucasia (Azerbaijan). The northern occurrence is limited by the boreal ecoregion Scandinavia and the southern one by North Africa – see e.g. Ježek et al. (2021), and Morelli & Biscaccianti (2022). Often a mass occurrence of adults in MT and YPT. Saprobiont larvae. Adults are sometimes known as pollinators (e.g. Szenteczki et al. 2021).

Psychoda crassipennis* Tonnoir, 1940*Unpublished localities:**

Blaník PLA: Blanice NR, Smrštov (1), 3 ♂♂, 10.4.–30.4., 30.4.–20.5. and 2.9.–2.10.2009, MT, CJM, INS 18923, 18988 and 19044.

Labské pískovce PLA: Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), ♀, 2.6.2009, MT, CJM, INS 17929.

Comments. European species, not frequent, occurring locally, known from the British Isles, France, Germany, the Netherlands, Denmark, Sweden, Norway and the Czech Republic, penetrates to Transcaucasia (Abkhazia) – Ježek et al. (2021, 2023). Adults are sometimes found in sheats of *Arum maculatum* which they pollinate.

Psychoda phalaenoides* (Linnaeus, 1758)*Unpublished localities:**

Blaník PLA: PR Blanice NR, Březina and Smrštov (1), 5 ♂♂, 10.4.–30.4., 30.4.–20.5., 20.5.–9.6., 9.6.–2.7. and 2.9.–2.10.2009, MT, CJM, INS 18906, 18919, 18965, 18985 and 19039. Částrovické rybníky ponds NM env. Vracovice (2), ♂, 4 ♀, 9.6., 3.7., 24.7., 4.9. and 2.10.2008, MT, CJM, INS 17675, 17701, 17742, 17823 and 17846. Louňov pond NM env. Načeradec (4), ♂, 3 ♀♀, 23.5., 10.6., 4.9. and 6.11.2008, MT CJM, INS 17747, 17772, 17781 and 17789. Podlesí NR env. Býkovice (7), 4 ♂♂, 3 ♀♀, 10.6.2008, 30.4.–20.5., 20.5.–9.6., 1.–17.7., 17.7.–11.8., 11.8.–2.9. and 2.9.–2.10.2009, SW, J, MT, CJM, INS 18881, 18939, 18958, 19008 19030, 19047 and 19061.

Labské pískovce PLA: Louky u Kunratic PPT (3), 3 ♂♂, 14.5., 15.6. and 2.7.2009, MT, CJM, INS 17865, 17935 and 17953. Na Tisce PPT env. Tisá (5), 2 ♀♀, 27.7. and 20.8.2009, MT, CJM, INS 17891 and 18056. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), ♂, 4 ♀♀, 14.5. and 20.8.2009, MT, CJM, INS 17911, 17924, 17984, 17998 and 18010.

Comments. Holarctic polyvoltine species, known as well from Transcaucasia (Azerbaijan and Gregoria incl. Abkhazia) – Ježek et al. (2021, 2023). Very common, collected in all suitable elevations, mass occurrence in MT and YPT. Adults are sometimes found in sheats of *Arum maculatum* which they pollinate. Saprobiont larvae.

Psychoda uniformata* Haseman, 1907*Unpublished localities:**

Blaník PLA: Blanice NR, Smrštov (1), 2 ♀♀, 30.4.–20.5. and 2.9.–2.10.2009, MT, CJM, INS 18932 and 18989. Částrovické rybníky ponds NM env. Vracovice (2), 3 ♀♀, 9.6., 24.7. and 4.9.2008, MT, CJM, INS 17677, 17722 and 17834. Louňov pond NM env. Načeradec (4), M, 4.9.2008, MT, CJM, INS 17762. Podlesí NR env. Býkovice (7), ♂, 2 ♀♀, 10.6.2008, 17.7.–11.8. and 11.8.–2.9.2009, SW, MT, J, CJM, INS 18884, 18953 and 19069.

Labské pískovce PLA: Louky u Kunratic PPT (3), 2 ♀♀, 14.5. and 15.6.2009, MT, CJM, INS 17944 and 17964. Na Tisce PPT env. Tisá (5), 2 ♀♀, 27.7. and 20.8.2009, MT, CJM, INS 17892 and 18058. Olšový potok brook NR

near Petrovice u Chabařovic x Rájec (6), 2 ♀♀, 30.7. and 20.8.2009, MT, CJM, INS 17983 and 18032.

Comments. Holarctic locally common species, described from the USA, recorded in 9 European countries, extending into Turkey, Transcaucasia (Armenia, Azerbaijan), North Africa (Morocco), Israel, Mongolia and Iran – Ježek et al. (2021, 2024b), and Jaume-Schinkel et al. (2023). Saprophagous larvae (occurrence in cowsheds stables and kennels).

Psychodocha cinerea* (Banks, 1894)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina and Smrštov (1), 2 ♀♀, 9.6.–2.7. and 2.9.–2.10.2009, MT, CJM, INS 18917 and 18929. Částrovické rybníky ponds NM env. Vracovice (2), 2 ♀♀, 24.7. and 4.9.2008, MT, CJM, INS 17686 and 17837. Louňov pond NM env. Načeradec (4), ♀, 4.9.2008, CJM, INS 17761.

Labské pískovce PLA: Louky u Kunratic PPT (3), 4 ♀♀, 20.4., 14.5., 15.6. and 2.7.2009, MT, CJM, INS 17866, 17941, 17948 and 17951. Na Tisce PPT env. Tisá (5), ♂, ♀, 27.7. and 20.8.2009, MT, CJM, INS 17903 and 18060. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 3 ♀♀, 2.7., 30.7. and 20.8.2009, MT, CJM, INS 17908, 18002 and 18012.

Comments. Cosmopolitan species, very common, occurring in a wide range of elevations. Detailed information, see e.g. Ježek & Yağci (2005). Numerous specimens often in MT and YPT. Saprophagous larvae are frequent in dirty and neglected WC.

Psychodocha gemina* (Eaton, 1904)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina and Smrštov (1), 2 ♂♂, 3 ♀♀, 10.4.–30.4., 30.4.–20.5. 20.5.–9.6., 9.6.–2.7., 2.9.–2.10.2009, MT, CJM, INS 18910, 18924, 18974., 19003 and 19045. Částrovické rybníky ponds NM env. Vracovice (2), 3 ♂♂, 2 ♀♀, 9.6., 3.7., 24.7. and 4.9., 2.10.2008, MT, CJM, INS 17667, 17711, 17736, 17825 and 17843. Louňov pond NM env. Načeradec (4), 2 ♂♂, ♀, 23.5., 4.9. and 6.11.2008, MT, CJM, INS 17749, 17771 and 17782. Podlesí NR env. Býkovice (7), 3 ♂♂, 3 ♀♀, 30.4.–20.5., 20.5.–9.6., 1.–17.7., 17.7.–11.8., 11.8.–2.9., and 2.9.–2.10.2009, MT, CJM, INS 18938, 18957, 19006, 19036, 19056 and 19071.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 2 ♀♀, 14.5. 15.6. and 2.7.2009, MT, CJM, INS 17867, 17937 and 17952. Na Tisce PPT env. Tisá (5), 2 ♀♀, 27.7. and 20.8.2009, MT, CJM, INS 17889 and 18057. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), ♂, 4 ♀♀, 2.7., 21.7., 30.7. and 20.8.2009, SW, MT, C, CJM, INS 17917, 17979, 17997, 18017 and 18043.

Comments. The European common species of lowlands and mountains, penetrates into Transcaucasia (Abkhazia, Azerbaijan, Georgia). Now known as well from Estonia (Ježek et al. 2023, Oboňa et al. 2024b). Saprophagous larvae can be found in nests of birds.

Psychodocha itoco* (Tokunaga & Komyo, 1955) – NS*Unpublished localities:**

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2), ♂, 4.9.2008, MT, CJM, INS 17692. Podlesí NR env. Býkovice (7), ♂, 20.5.–9.6.2009, MT, CJM, INS 19060.

Labské pískovce PLA: Louky u Kunratic PPT (3), 2 ♂♂, 15.6. and 2.7.2009, MT, CJM, INS 17881 and 17972. Olšový potok brook near Petrovice u Chabařovic x Rájec (6), ♂, 2.7.2009, MT, CJM, INS 17919.

Comments. Species safely with a larger distribution than is documented so far – Japan, Czech Republic and Finland (Ježek et al. 2021). Nationally scarce (NS), monitoring is badly needed.

Psychodula minuta* (Banks, 1894)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina and Smrštov (1), 4 ♂♂, 10.4.–30.4., 30.4.–20.5., 20.5.–9.6. and 9.6.–2.7.2009, MT, CJM, INS 18913, 18969, 18987 and 19038. Částrovické rybníky ponds NM env. Vracovice (2), 2 ♂♂, 2 ♀♀, 9.6., 3.7., 24.7. and 4.9.2008, MT, CJM, INS 17681, 17704, 17831 and 17862. Louňov pond NM env. Načeradec (4), ♂, 2 ♀♀, 23.5., 10.6. and 4.9.2008, MT, CJM, INS 17763, 17775 and 17800. Podlesí NR env. Býkovice (7), 2 ♂♂, 3 ♀♀, 30.4.–20.5., 20.5.–9.6., 1.–17.7. and 17.7.–11.8., 11.8.–2.9.2009, MT, CJM, INS 18952, 18956, 19021, 19055 and 19072.

Labské pískovce PLA: Na Tisce PPT env. Tisá (5), ♂, 27.7.2009, MT, CJM, INS 17901. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 3 ♀♀, 2.7., 30.7. and 20.8.2009, MT, CJM, INS 17915, 17978 and 18026.

Comments. Holarctic species, often with a rich occurrence, registered in many countries, lowlands, hilly regions and mountains. Now was published as well from Estonia (Ježek et al. 2020, Oboňa et al. 2024b). Larvae are saprobiont (caves, chiropteran excrements).

Psychomora mycophila* (Vaillant, 1988)*Unpublished localities:**

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2), ♂, 4.9.2008, MT, CJM, INS 17691.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 15.6.2009, MT, CJM, INS 17969.

Comments. Rare European species (sweep netting during individual excursions is not successful in contrast to traps) registered only in France, Czech Republic, Slovakia, Slovenia, Switzerland and Ukraine with occurrence from lowlands to mountains – Ježek et al. (2024a). Larvae are mycobionts.

Psychomora trinodulosa* (Tonnoir, 1922)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina and Smrštov (1), 3 ♂♂, ♀, 30.4.–20.5., 20.5.–9.6., 9.6.–2.7. and 2.9.–2.10.2009, MT, CJM, INS 18904, 18920, 18968 and 18986. Částrovické rybníky ponds NM env. Vracovice (2), 5 ♂♂, 9.6., 3.7., 24.7., 4.9. and 2.10.2008, MT, CJM, INS 17669, 17695, 17744, 17812 and 17842. Louňov pond NM env. Načeradec

(4), ♂♂, 2 ♀♀, 23.5., 4.9. and 6.11.2008, MT, CJM, INS 17751, 17767 and 17780. Podlesí NR env. Býkovice (7), 3 ♂♂, 3 ♀♀, 30.4.–20.5., 20.5.–9.6., 1.–17.7., 17.7.–11.8., 11.8.–2.9. and 2.9.–2.10.2009, MT, CJM, INS 18941, 18959, 19015, 19025, 19049 and 19064.

Labské pískovce PLA: Louky u Kunratic PPT (3), 2 ♂♂, 2 ♀♀, 20.4., 14.5., 15.6. and 2.7.2009, MT, CJM, INS 17869, 17936, 17946 and 17950. Na Tisce PPT env. Tisá (5), ♂, ♀, 27.7. and 20.8.2009, MT, CJM, INS 17887 and 18059. Olšový potok brook near Petrovice u Chabařovic x Rájec (6), 3 ♂♂, 3 ♀♀, 2.6., 2.7., 30.7. and 20.8.2009, MT, CJM, INS 17910, 17925, 17927, 17986, 17999 and 18018.

Comments. Holarctic very common species, known from different elevations, frequent in light traps. Some details see e.g. Ježek & Yağci (2005).

Tinearia alternata* (Say, 1824)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina and Smrštov (1), 2 ♀♀, 9.6.–2.7. and 2.9.–2.10.2009, MT, CJM, INS 18907 and 18925. Částrovické rybníky ponds NM env. Vracovice (2), 4 ♀♀, 9.6., 24.7., 4.9., 2.10.2008, MT, CJM, INS 17670, 17707, 17738 and 17813. Louňov pond NM env. Načeradec (4), ♂, ♀, 4.9. and 6.11.2008, MT, CJM, INS 17752 and 17778. Podlesí NR env. Býkovice (7), ♂, 3 ♀♀, 1.–17.7., 17.7.–11.8., 11.8.–2.9. and 2.9.–2.10.2009, MT, CJM, INS 18940, 19022, 19032 and 19065.

Labské pískovce PLA:

Louky u Kunratic PPT (3), ♀, 2.7.2009, MT, CJM, INS 17874. Na Tisce PPT env. Tisá (5), ♂, ♀, 27.7. and 20.8.2009, MT, CJM, INS 17888 and 18054. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 4 ♀♀, 2.7., 30.7. and 20.8.2009, MT, CJM, INS 17914, 17981, 17994 and 18027.

Comments. Cosmopolitan very common species with mass occurrence in MT and YPT – Ježek & Yağci (2005). Larvae develop not only in rotten organic substrates and excrements, but live as well in madicolous habitats, in burrows and nests of different organisms (e.g. Roháček et al. 2022). In the case of mass occurrence, the larvae block the function of old-fashioned biological filters of gravel sewage works. Now was published as well from Estonia (Oboňa et al. 2024b). For more details see also Evenhuis (2023).

Tinearia lativentris* (Berdén, 1952)*Unpublished localities:**

Blaník PLA: Blanice NR, Smrštov (1), ♀, 2.9.–2.10.2009, MT, CJM, INS 18921. Částrovické rybníky ponds NM env. Vracovice (2), 5 ♀♀, 9.6., 3.7., 24.7., 4.9., and 2.10.2008, MT, CJM, INS 17682, 17693, 17743, 17815 and 17840. Louňov pond NM env. Načeradec (4), 2 ♀♀, 10.6. and 4.9.2008, MT, CJM, INS 17759 and 17799. Podlesí NR env. Býkovice (7), 5 ♀♀, 20.5.–9.6., 1.–17.7., 17.7.–11.8., 11.8.–2.9. and 2.9.–2.10.2009, MT, CJM, INS 18937, 19007, 19027, 19057 and 19062.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♀,

2.7.2009, MT, CJM, INS 17886. Na Tisce PPT env. Tisá (5), 2 ♀♀, 27.7. and 20.8.2009, MT, CJM, INS 17899 and 18055. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 3 ♀♀, 30.7. and 20.8.2009, MT, CJM, INS 17980, 17995 and 18023.

Comments. Holarctic species, frequent locally, mass occurrence often in MT and YPT – Ježek & Yažci (2005). Saprophagous larvae.

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

Unpublished localities:

Blaník PLA: Blanice NR, Smrštov (1), ♀, 2.9.–2.10.2009, MT, CJM, INS 18931. Částrovické rybníky ponds NM env. Vracovice (2), ♀, 24.7.2008, CJM, INS 17838. Louňov pond NM env. Načeradec (4), ♀, 4.9.2008, MT, CJM, INS 17753. Podlesí NR env. Býkovice (7), 2 ♀♀, 17.7.–11.8. and 2.9.–2.10.2009, MT, CJM, INS 18944 and 19033.

Labské pískovce PLA: Louky u Kunratic PPT (3), 3 ♀♀, 14.5., 15.6. and 2.7.2009, MT, CJM, INS 17879, 17940 and 17961. Na Tisce PPT env. Tisá (5), ♂, ♀, 27.7.2009, MT, CJM, INS 17896 and 17904. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 5 ♀♀, 2.6., 2.7., 30.7. and 20.8.2009, MT, CJM, INS 17918, 17926, 17990, 18005 and 18022.

Comments. Holarctic species, frequent locally, recorded in 13 European countries, extending into Transcaucasia (Georgia incl. Abkhazia), Canada, USA and Japan – Ježek et al. (2023, 2024a,b). Larvae are saprobiont, can be found in dung–water and manure – often in extreme elevations (pastures, slope spring areas, avalanche furrows). Adults hold out a mass occurrence in MT and YPT. Now was published as well from Estonia (Oboňa et al. 2024b).

***Berdeniella kocii* Ježek, 2006 – NS**

Unpublished localities:

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 2.7.2009, MT, CJM, INS 17878.

Comments. Species was described on the basis of numerous Czech type material (60 specimens of many localities) from Jeseníky PLA, in the last time as well published from Jizerské hory PLA. Distribution: Czech Republic, Slovakia, Ukraine and Bulgaria – Ježek et al. (2020). Nationally scarce, monitoring in future is badly needed.

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

Unpublished localities:

Labské pískovce PLA: Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), ♂, 2.6.2009, MT, CJM, INS 17930.

Comments. European species known from several countries: Belgium, Denmark, Great Britain, Ireland, Italy, Czech Republic, Slovakia, Hungaria and Slovenia – Ježek et al. (2021), Morelli & Biscaccianti (2021).

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

Unpublished localities:

Blaník PLA: Blanice NR, Březina and Smrštov (1), 2 ♂♂, 6.6. and 2.9.–2.10.2008, SW, MT, J, CJM, INS 18898 and 18933. Částrovické rybníky ponds NM env. Vracovice (2), ♂, 24.7.2008, MT, CJM, INS 17826. Louňov pond NM env. Načeradec (4), ♂, 6.6.2008, SW, J, INS 17805. Podlesí NR env. Býkovice (7), 4 ♂♂, 10.6.2008, 30.4.–20.5., 1.–17.7. and 17.7.–11.8.2009, SW, MT, J, CJM, INS 18883, 18950, 18962 and 19014.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 14.5.2009, MT, CJM, INS 17938. Na Tisce PPT env. Tisá (5), ♂, 27.7.2009, MT, CJM, INS 17906. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 4 ♂♂, 2.6., 30.7. and 20.8.2009, MT, CJM, INS 17922, 17987, 18003 and 18024.

Comments. Species currently known from Belgium, Czech Republic, Poland, Bosnia and Hercegovina, Serbia, Slovakia, Ukraine and Bulgaria – Ježek et al. (2020); in the last time could be likely confused with *C. ocellaris*. Now was published as well from Estonia and Russia (Oboňa et al. 2024 a,b). Nationally scarce, monitoring in future is badly needed.

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

Unpublished localities:

Blaník PLA: Blanice NR, Březina and Smrštov (1), 5 ♂♂, 10.–30.4., 30.4.–20.5., 20.5.–9.6., 9.6.–2.7. and 2.9.–2.10.2009, MT, CJM, INS 18911, 18922, 18976, 18994 and 19043. Částrovické rybníky ponds NM env. Vracovice (2), 6 ♂♂, 28.4., 9.6., 3.7., 24.7., 4.9. and 2.10.2008, SW, MT, J, CJM, INS 17672, 17706, 17731, 17737, 17821 and 17845. Louňov pond NM env. Načeradec (4), 4 ♂♂, 23.5., 6.6., 4.9. and 6.11.2008, SW, MT, J, CJM, INS 17750, 17769, 17779 and 17806. Podlesí NR env. Býkovice (7), 6 ♂♂, 10.6.2008, 30.4.–20.5., 1.–17.7., 17.7.–11.8., 11.8.–2.9. and 2.9.–2.10.2009, SW, MT, J, CJM, INS 18882, 18947, 18961, 19004, 19031 and 19063.

Labské pískovce PLA: Louky u Kunratic PPT (3), 4 ♂♂, 14.5., 15.6., 2.7. and 20.7.2009, SW, MT, C, CJM, INS 17875, 17939, 17957, 18052. Na Tisce PPT env. Tisá (5), 2 ♂♂, 27.7. and 20.8.2009, MT, CJM, INS 17895 and 18061. Olšový potok NR near Petrovice u Chabařovic x Rájec (6), 8 ♂♂, 2.6., 2.7., 21.7., 30.7., 20.8.2009, SW, MT, C, CJM, INS 17912, 17923, 17976, 18000, 18011, 18038, 18051 and 18053.

Comments. Species known from Central and Western Europe, incl. the British Isles, the northern border limits Finland, on the south penetrates to Italy and Balkan, on the east to Lithuania (Wagner 1990, 2019; Ježek et al. 2019, 2020). Now was published as well from Russia (Oboňa et al. 2024a). The species inhabits banks of water flows, spring areas and wet meadows. A mass occurrence often in MT and YPT.

Clytocerus (Boreoclytocerus) rivosus* (Tonnoir, 1919) – CR*Unpublished localities:**

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2), ♂, 24.7.2008, MT, CJM, INS 17829.

Labské pískovce PLA: Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), ♂, 30.7.2009, MT, CJM, INS 18029.

Comments. European species, not frequent, with sporadic occurrence in countries of Central and Western Europe (incl. the British Isles), the eastern frontier represents Lithuania and penetrates as well into the Scandinavian ecoregion (Sweden) – (Ježek 2003, Ježek et al. 2019). It inhabits inundate forests, alluvium of brooks and rivers. Critically endangered in CZ.

Clytocerus (Boreoclytocerus) splendidus* Ježek & Hájek, 2007 – NS*Unpublished localities:**

Blaník PLA: Blanice NR, Smrštov (1), 2 ♂♂, 10.–30.4. and 30.4.–20.5.2009, MT, CJM, INS 18995 and 19042. Částrovické rybníky ponds NM env. Vracovice (2), 2 ♂♂, 9.6. and 24.7.2008, MT, CJM, INS 17705 and 17830. Louňov pond NM env. Načeradec (4), ♂, 4.9.2008, MT, CJM, INS 17755. Podlesí NR env. Býkovice (7), 3 ♂♂, 30.4.–20.5., 1.–17.7. and 11.8.–2.9.2009, MT, CJM, INS 18963, 19012 and 19067.

Comments. Species known from many localities in the Czech Republic (Bohemia and Moravia), moreover collected in Slovakia, Poland and Belgium (Ježek et al. 2024a,b,c,d). Now was published as well from Estonia and Russia (Oboňa et al. 2024a,b). Nationally scarce, monitoring in future is badly needed.

Parabazarella subneglecta* (Tonnoir, 1922)*Unpublished localities:**

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2), 2 ♂♂, 28.4. and 4.9.2008, SW, MT, J, CJM, INS 17671 and 17729.

Labské pískovce PLA: Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 2 ♂♂, 30.7. and 20.8.2009, MT, CJM, INS 17992 and 18028.

Comments. Euro–Asian species, not frequent, spread in central stripe of Europe (from Belgium to Poland, in eastern part into Lithuania). Most northern localities are in the Scandinavian ecoregion (Denmark, Finland), most southern points are cumulated on the Balkan Peninsula and in Anatolia – see e.g. Ježek et al. (2020, 2021, 2024b).

Pericoma (Pericoma) pingarestica* Vaillant, 1978 – NS*Unpublished localities:**

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 15.6.2009, SW, C, INS 18048.

Comments. European species, registered in Bulgaria, Czech Republic, Romania, Serbia and Slovakia (Krek 1999; Oboňa & Ježek 2014; Ježek et al. 2020). It can be considered a threatened species, nationally scarce (NS).

Pericoma (Pachypericoma) blandula* Eaton, 1893*Unpublished localities:**

Blaník PLA: Blanice NR, Smrštov (1), ♂, 30.4.–20.5.2009, MT, CJM, INS 18984. Částrovické rybníky ponds NM env. Vracovice (2), 2 ♂♂, 9.6. and 24.7.2008, MT, CJM, INS 17723 and 17828. Louňov pond NM env. Načeradec (4), 3 ♂♂, 6.6., 10.6. and 4.9.2008, SW, MT, J, CJM, INS 17758, 17795, 17807.

Labské pískovce PLA: Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 2 ♂♂, 21.7. and 30.7.2009, SW, MT, C, CJM, INS 18021 and 18041.

Comments. Current species, well known, not limited by occurrence throughout Europe (reported from 30 countries), collected in the Caucasus (Georgia incl. Abkhazia, Armenia, Azerbaijan), in Algeria, Tunisia and Morocco, elevation is not important. More details see e.g. Ježek et al. (2020).

Pericoma (Pachypericoma) fallax* Eaton, 1893*Unpublished localities:**

Blaník PLA: Blanice NR, Březina and Smrštov (1), 3 ♂♂, 6.6.2008, 30.4.–20.5. and 20.5.–9.6.2009, SW, MT, J, CJM, INS 18896, 18977 and 18983. Částrovické rybníky ponds NM env. Vracovice (2), 4 ♂♂, 9.6., 3.7., 24.7. and 4.9.2008, MT, CJM, INS 17688, 17713, 17817 and 17854.

Comments. European–West–Siberian species, common and frequent, known from more than 20 countries, published as well from Transcaucasia (Georgia incl. Abkhazia, Azerbaijan) – see e.g. Oboňa et al. (2019b), Ježek et al. (2020, 2024b), and recently from Morocco (Saidoun et al. 2025).

Pericoma (Pachypericoma) nielseni* Kvifte, 2010 – NS*Unpublished localities:**

Blaník PLA: Blanice NR, Smrštov (1), ♂, 30.4.–20.5.2009, MT, CJM, INS 18992.

Comments. European, taxonomically underestimated species, recognized as valid only in the last time, rather rare, in the first place, out of attention. Distribution: Belgium, Czech Republic, Denmark, Finland, France, Norway, Slovakia, Ukraine (e.g. Ježek et al. 2020). It can be considered a threatened species, nationally scarce (NS).

Pneumia nubila* (Meigen, 1818)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina and Smrštov (1), 2 ♂♂, 30.4.–20.5., 9.6.–2.7.2009, MT, CJM, INS 18909 and 18991. Částrovické rybníky ponds NM env. Vracovice (2), 5 ♂♂, 28.4., 3.7., 24.7. and 4.9.2008, SW, MT, J, CJM, INS 17674, 17726, 17734, 17827 and 17841. Louňov pond NM env. Načeradec (4), 3 ♂♂, 23.5., 10.6. and 4.9.2008, MT, CJM, INS 17748, 17765 and 17787. Podlesí NR env. Býkovice (7), ♂, 10.6.2008, SW, J, INS 18878

Labské pískovce PLA: Louky u Kunratic PPT (3), 3 ♂♂, 15.6. and 2.7.2009, SW, MT, C, CJM, INS 17873, 18034 and 18045. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), ♂, 21.7.2009, SW, C, INS 18039.

Comments. European species, one of the most frequent members of the family Psychodidae in the Czech Republic. Known throughout Europe from Spain and the British Isles as well as Scandinavia to Poland, Lithuania and Estonia. The southern frontier is bordered by Italy, the Balkan and the Caucasus (Armenia, Georgia incl. Abkhazia); occurrence on the Canary Islands and Sardinia (Ježek et al. 2020; Oboňa et al. 2024b).

Pneumia pilularia (Tonnoir, 1940)

Unpublished localities:

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2), ♂, 2.10.2008, MT, CJM, INS 17735.

Comments. European species, frequent locally, known throughout Europe incl. the British Isles and Spain in the west and Lithuania in the east. Most northern localities are in Scandinavia; there are data from Russia, Tajikistan, Azerbaijan, Georgia incl. Abkhazia, Algeria and Morocco – see e.g. Ježek et al. (2018, 2020, 2023).

Pneumia trivialis (Eaton, 1893)

Unpublished localities:

Blaník PLA: Blanice NR, Březina and Smrštov (1), 4 ♂♂, 6.6.2008, 10.–30.4., 9.6.–2.7. and 2.9.–2.10.2009, SW, MT, J, CJM, INS 18892, 18901, 18926 and 19041. Částrovické rybníky ponds NM env. Vracovice (2), 7 ♂♂, 28.4., 9.6., 3.7., 24.7., 4.9. and 2.10.2008, SW, MT, J, CJM, INS 17668, 17694, 17725, 17733, 17739, 17814 and 17839. Louňov pond NM env. Načeradec (4), 4 ♂♂, 23.5., 6.6., 4.9. and 6.11.2008, SW, MT, J, CJM, INS 17745, 17766, 17777 and 17803. Podlesí NR env. Býkovice (7), 3 ♂♂, 10.6.2008, 1.–17.7., 2.9.–2.10.2009, SW, MT, J, CJM, INS 18880, 19016 and 19026.

Labské pískovce PLA: Louky u Kunratic PPT (3), 4 ♂♂, 15.6. and 2.7.2009, SW, MT, C, CJM, INS 17864, 17956, 18035 and 18036. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 7 ♂♂, 2.6., 2.7., 21.7., 30.7. and 20.8.2009, SW, MT, C, CJM, INS 17907, 17921, 17985, 17993, 18014, 18042, 18050.

Comments. European species, very common and frequent, with a wide ecological valency. It covers territory from the Iberian Peninsula through the British Isles and Scandinavia through central European countries to Poland. The southern frontier is limited by the Balkan Peninsula and Transcaucasia (Georgia incl. Abkhazia, Azerbaijan); now published as well from Estonia (Ježek et al. 2021, 2023 and Oboňa et al. 2024b). A mass occurrence often in MT and YPT. Very much spread in the Czech frontier mountains (Orlické hory PLA and Jeseníky PLA).

Tonnoiriella nigricauda (Tonnoir, 1919) – CR

Unpublished localities:

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2), 3 ♂♂, 28.4., 9.6. and 24.7.2008, SW, MT, J, CJM, INS 17696, 17727 and 17824. Louňov pond NM env. Načeradec (4), 3 ♂♂, 23.5., 10.6. and 4.9.2008, MT, CJM, INS 17756, 17770 and 17793. Podlesí NR env. Býkovice

(7), 2 ♂♂, 1.–17.7. and 17.7.–11.8.2009, MT, CJM, INS 18954 and 19023.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂♂, 2.7.2009, MT, CJM, INS 17871. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), 2 ♂♂, 30.7. and 20.8.2009, MT, CJM, INS 18004 and 18013.

Comments. European species (9 countries), with a sporadic occurrence, known only from Belgium, Great Britain, Denmark, Finland, Germany, Hungary, Norway, Czech Republic and Slovakia – (Ježek et al. 2024a,b). Now was published as well from Estonia (Oboňa et al. 2024b). Critically endangered in CZ.

Tonnoiriella pulchra (Eaton, 1893)

Unpublished localities:

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2), 5 ♂♂, 28.4., 3.7., 24.7., 4.9. and 2.10.2008, SW, MT, J, CJM, INS 17676, 17732, 17741, 17816, 17852. Podlesí NR env. Býkovice (7), 2 ♂♂, 1.–17.7. and 17.7.–11.8.2009, MT, CJM, INS 18949 and 19013.

Labské pískovce PLA: Louky u Kunratic PPT (3), 3 ♂♂, 14.5., 15.6. and 2.7.2009, MT, CJM, INS 17870, 17943 and 17967.

Comments. European species, not frequent, distributed in Western, Central and Southern parts: Belgium, Bulgaria, Czech Republic, Slovakia, France, Ireland, Italy, Hungary, Germany, Romania, Spain and Great Britain (Ježek et al. 2024b); registered as well in Algeria and Morocco – Afzan & Belquat (2016).

Ulomyia annulata annulata (Tonnoir, 1919)

Unpublished localities:

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2), 2 ♂♂, 28.4. and 3.7.2008, SW, MT, J, CJM, INS 17730 and 17850.

Comments. European–West–Siberian subspecies, not frequent. Distribution: Belgium, Czech Republic, Germany, Austria, Slovakia, Lithuania and Siberia (Novosibirsk region) – Ježek & Omelková (2012), Ježek et al. (2019, 2024b). *Ulomyia a. chimganensis* Ježek, 1997 was described from Uzbekistan.

Ulomyia cognata (Eaton, 1893)

Unpublished localities:

Blaník PLA: Částrovické rybníky ponds NM env. Vracovice (2), ♂, 4.9.2008, MT, CJM, INS 17678.

Labské pískovce PLA: Louky u Kunratic PPT (3), ♂, 14.5.2009, MT, CJM, INS 17942. Olšový potok brook NR near Petrovice u Chabařovic x Rájec (6), ♂, 2.6.2009, MT, CJM, INS 17933.

Comments. European locally frequent species, known from different suitable elevations Published so far from France, Finland, Germany, Great Britain, Czech Republic, Slovakia, Poland, Lithuania, Austria, Slovenia, Ukraine, Italy, as well as Armenia and Georgia (Ježek et al. 2018, 2024b).

Ulomyia fuliginosa* (Meigen, 1804)*Unpublished localities:**

Blaník PLA: Blanice NR, Březina (1), 2 ♂♂, 6.6.2008 and 9.6.–2.7.2009, SW, MT, J, CJM, INS 18888 and 18905. Částořické rybníky ponds NM env. Vracovice (2), 4 ♂♂, 28.4., 3.7., 4.9. and 2.10.2008, SW, MT, J, CJM, INS 17673, 17728, 17740 and 17855. Louňov pond NM env. Načeradec (4), ♂, 4.9.2008, MT, CJM, INS 17746.

Labské pískovce PLA: Louky u Kunratic PPT (3), 5 ♂♂, 14.5., 15.6. and 2.7.2009, SW, MT, C, CJM, INS 17872, 17934, 17954, 18037 and 18046. Na Tisce PPT env. Tisá (5), ♂, 27.7.2009, MT, CJM, INS 17905. Olšový potok

brook NR near Petrovice u Chabařovic x Rájec (6), 2 ♂♂, 21.7.2009, SW, C, INS 18040 and 18049.

Comments. One of the most common species throughout Europe (29 countries) from lowlands to mountain combs, however data from the former USSR are very scarce (only Lithuania and Ukraine) – some details see e.g. Ježek et al. (2020, 2021, 2024a,b). A mass occurrence often in MT and YPT.

A detailed overview of the recorded species at each site is given in Table 2.

Table 2. List of localities with recorded species.

no.	site	recorded species
1 – Blaník PLA	Blanice NR, Březina and Smršťov	<i>J. (J.) hygrophila</i> , <i>J. (J.) soleata</i> , <i>J. (J.) valachica</i> , <i>P. notabilis</i> , <i>P. ellisi</i> – CR, <i>P. longicornis</i> , <i>P. prikryli</i> – VU, <i>P. serbica</i> – CR, <i>P. (P.) polyascoidea</i> , <i>P. auriculata</i> , <i>P. integella</i> – CR, <i>S. carthusiana</i> , <i>S. gressica</i> , <i>F. obscura</i> , <i>T. hirtella</i> , <i>C. lobata</i> , <i>C. brevicornis</i> , <i>L. albipennis</i> , <i>L. erminea</i> , <i>L. satchelli</i> , <i>L. zetterstedti</i> , <i>P. grisescens</i> , <i>P. crassipennis</i> , <i>P. phalaenoides</i> , <i>P. uniformata</i> , <i>P. cinerea</i> , <i>P. gemina</i> , <i>P. minuta</i> , <i>P. trinodulosa</i> , <i>T. alternata</i> , <i>T. lativentris</i> , <i>Y. setigera</i> , <i>C. (B.) longicorniculatus</i> – NS, <i>C. (B.) ocellaris</i> , <i>C. (B.) splendidus</i> – NS, <i>P. (P.) blandula</i> , <i>P. (P.) fallax</i> , <i>P. (P.) nielseni</i> – NS, <i>P. nubila</i> , <i>P. trivialis</i> , <i>U. fuliginosa</i>
2 – Blaník PLA	Částořické rybníky ponds NM	<i>J. (J.) hygrophila</i> , <i>J. (J.) valachica</i> , <i>J. (P.) hassiaca</i> – NS, <i>P. denticulatus</i> , <i>P. consors</i> , <i>P. ellisi</i> – CR, <i>P. longicornis</i> , <i>P. prikryli</i> – VU, <i>P. pseudolongicornis</i> – CR, <i>P. serbica</i> – CR, <i>P. (P.) polyascoidea</i> , <i>P. (D.) ustulata</i> , <i>P. auriculata</i> , <i>P. integella</i> – CR, <i>S. carthusiana</i> , <i>S. gressica</i> , <i>F. obscura</i> , <i>T. hirtella</i> , <i>T. lucifugus</i> , <i>C. lobata</i> , <i>L. albipennis</i> , <i>L. erminea</i> , <i>L. satchelli</i> , <i>L. zetterstedti</i> , <i>P. grisescens</i> , <i>P. phalaenoides</i> , <i>P. uniformata</i> , <i>P. cinerea</i> , <i>P. gemina</i> , <i>P. itoco</i> – NS, <i>P. minuta</i> , <i>P. mycophila</i> , <i>P. trinodulosa</i> , <i>T. alternata</i> , <i>T. lativentris</i> , <i>Y. setigera</i> , <i>C. (B.) longicorniculatus</i> – NS, <i>C. (B.) ocellaris</i> , <i>C. (B.) rivosus</i> – CR, <i>C. (B.) splendidus</i> – NS, <i>P. subneglecta</i> , <i>P. (P.) blandula</i> , <i>P. (P.) fallax</i> , <i>P. nubila</i> , <i>P. pilularia</i> , <i>P. trivialis</i> , <i>T. nigricauda</i> – CR, <i>T. pulchra</i> , <i>U. a. annulata</i> , <i>U. cognata</i> , <i>U. fuliginosa</i>
3 – Labské pískovce PLA	Louky u Kunratic PPT	<i>O. andrenipes</i> – CR, <i>J. (J.) hygrophila</i> , <i>J. (J.) valachica</i> , <i>P. denticulatus</i> , <i>P. ellisi</i> – CR, <i>P. prikryli</i> – VU, <i>P. pseudolongicornis</i> – CR, <i>P. (P.) polyascoidea</i> , <i>P. auriculata</i> , <i>S. gressica</i> , <i>S. labeculosa</i> – EN, <i>T. hirtella</i> , <i>C. brevicornis</i> , <i>L. albipennis</i> , <i>L. erminea</i> , <i>L. satchelli</i> , <i>L. zetterstedti</i> , <i>P. grisescens</i> , <i>P. phalaenoides</i> , <i>P. uniformata</i> , <i>P. cinerea</i> , <i>P. gemina</i> , <i>P. itoco</i> – NS, <i>P. mycophila</i> , <i>P. trinodulosa</i> , <i>T. alternata</i> , <i>T. lativentris</i> , <i>Y. setigera</i> , <i>B. kocii</i> – NS, <i>C. (B.) longicorniculatus</i> – NS, <i>C. (B.) ocellaris</i> , <i>P. (P.) pingarestica</i> – NS, <i>P. nubila</i> , <i>P. trivialis</i> , <i>T. nigricauda</i> – CR, <i>T. pulchra</i> , <i>U. cognata</i> , <i>U. fuliginosa</i>

Table 2. Continued.

no.	site	recorded species
4 – Blaník PLA	Louňov pond NM	<i>P. longicornis</i> , <i>P. prikryli</i> – VU, <i>P. pseudolongicornis</i> – CR, <i>P. serbica</i> – CR, <i>P. (D.) ustulata</i> , <i>P. auriculata</i> , <i>P. integella</i> – CR, <i>S. gressica</i> , <i>F. obscura</i> , <i>T. hirtella</i> , <i>C. brevicornis</i> , <i>L. albipennis</i> , <i>L. erminea</i> , <i>L. satchelli</i> , <i>L. zetterstedti</i> , <i>P. grisescens</i> , <i>P. phalaenoides</i> , <i>P. uniformata</i> , <i>P. cinerea</i> , <i>P. gemina</i> , <i>P. minuta</i> , <i>P. trinodulosa</i> , <i>T. alternata</i> , <i>T. lativentris</i> , <i>Y. setigera</i> , <i>C. (B.) longicorniculatus</i> – NS, <i>C. (B.) ocellaris</i> , <i>C. (B.) splendidus</i> – NS, <i>P. (P.) blandula</i> , <i>P. nubila</i> , <i>P. trivialis</i> , <i>T. nigricauda</i> – CR, <i>U. fuliginosa</i>
5 – Labské pískovce PLA	Na Tisce PPT	<i>L. rothschildi</i> – NS, <i>P. notabilis</i> , <i>T. hirtella</i> , <i>C. lobata</i> , <i>C. brevicornis</i> , <i>L. albipennis</i> , <i>L. satchelli</i> , <i>P. grisescens</i> , <i>P. phalaenoides</i> , <i>P. uniformata</i> , <i>P. cinerea</i> , <i>P. gemina</i> , <i>P. minuta</i> , <i>P. trinodulosa</i> , <i>T. alternata</i> , <i>T. lativentris</i> , <i>Y. setigera</i> , <i>C. (B.) longicorniculatus</i> – NS, <i>C. (B.) ocellaris</i> , <i>U. fuliginosa</i>
6 – Labské pískovce PLA	Olšový potok brook NR	<i>P. (P.) polyascoidea</i> , <i>S. gressica</i> , <i>T. hirtella</i> , <i>C. lobata</i> , <i>C. brevicornis</i> , <i>L. albipennis</i> , <i>L. erminea</i> , <i>L. satchelli</i> , <i>P. grisescens</i> , <i>P. crassipennis</i> , <i>P. phalaenoides</i> , <i>P. uniformata</i> , <i>P. cinerea</i> , <i>P. gemina</i> , <i>P. itoco</i> – NS, <i>P. minuta</i> , <i>P. trinodulosa</i> , <i>T. alternata</i> , <i>T. lativentris</i> , <i>Y. setigera</i> , <i>C. (B.) dalii</i> , <i>C. (B.) longicorniculatus</i> – NS, <i>C. (B.) ocellaris</i> , <i>C. (B.) rivosus</i> – CR, <i>P. subneglecta</i> , <i>P. (P.) blandula</i> , <i>P. nubila</i> , <i>P. trivialis</i> , <i>T. nigricauda</i> – CR, <i>U. cognata</i> , <i>U. fuliginosa</i>
7 – Blaník PLA	Podlesí NR	<i>P. longicornis</i> , <i>P. pseudolongicornis</i> – CR, <i>P. (P.) polyascoidea</i> , <i>P. (D.) ustulata</i> , <i>P. integella</i> – CR, <i>F. obscura</i> , <i>T. hirtella</i> , <i>C. lobata</i> , <i>C. brevicornis</i> , <i>L. albipennis</i> , <i>L. erminea</i> , <i>L. satchelli</i> , <i>L. zetterstedti</i> , <i>P. grisescens</i> , <i>P. phalaenoides</i> , <i>P. uniformata</i> , <i>P. gemina</i> , <i>P. itoco</i> – NS, <i>P. minuta</i> , <i>P. trinodulosa</i> , <i>T. alternata</i> , <i>T. lativentris</i> , <i>Y. setigera</i> , <i>C. (B.) longicorniculatus</i> – NS, <i>C. (B.) ocellaris</i> , <i>C. (B.) splendidus</i> – NS, <i>P. nubila</i> , <i>P. trivialis</i> , <i>T. nigricauda</i> – CR, <i>T. pulchra</i>

Table 3. An updated systematic list of 62 species (incl. 1 subspecies) of non-biting moth flies (Diptera, Psychodidae) known from Blaník and Labské pískovce PLAs.

species	distribution	extending into	conservation potential	Blaník PLA, occurrence	Labské pískovce PLA, occurrence
<i>O. andrenipes</i>	EUR	–	CR	–	VII
<i>J. (J.) hygrophila</i>	EUR	–	–	V–VII	VI
<i>J. (J.) soleata</i>	EUR	Iran	–	VI	–
<i>J. (J.) valachica</i>	EUR	–	–	V–VI	VI
<i>J. (P.) hassiaca</i>	CEU	–	NS	VII	–
<i>L. rothschildi</i>	EUR	Estonia	NS	–	VII
<i>P. denticulatus</i>	EUR	Transcaucasia	–	VII	VII
<i>P. notabilis</i>	EUR	Iran	–	V–VI	VIII
<i>P. consors</i>	EUR	–	–	VI	–
<i>P. ellisi</i>	EUS	–	CR	V–VII	VI
<i>P. longicornis</i>	EUS	Estonia	–	IV–VI	–
<i>P. prikryli</i>	CEU	–	VU	V–VII	VI
<i>P. pseudolongicornis</i>	EUR	–	CR	VI	VI

Table 3. Continued.

species	distribution	extending into	conservation potential	Blaník PLA, occurrence	Labské pískovce PLA, occurrence
<i>P. serbica</i>	SBM	Transcaucasia, Estonia	CR	VI	–
<i>P. (P.) polyascoidea</i>	EUS	Transcaucasia, Estonia	–	IV–IX	VI–VIII
<i>P. (D.) ustulata</i>	HOL	–	–	V–X	–
<i>P. auriculata</i>	EUR	Transcaucasia	–	V–VII	VI
<i>P. integella</i>	EUS	–	CR	IV–VII	–
<i>S. carthusiana</i>	EUR	–	–	IV–VI	–
<i>S. gressica</i>	EUR	Estonia	–	V–VI	VII
<i>S. labeculosa</i>	EUR	Russia, Estonia	EN	–	VI
<i>F. obscura</i>	EUR	Transcaucasia	–	V–IX	–
<i>T. hirtella</i>	EUR	Russia, Estonia, Transcaucasia	–	IV–X	VI–VIII
<i>T. lucifugus</i>	EUR	–	–	IX	–
<i>C. lobata</i>	EUR	Transcaucasia, Estonia	–	V–IX	VII–VIII
<i>C. brevicornis</i>	PAL	Transcaucasia, Lithuania	–	IV–X	VI–VIII
<i>L. albipennis</i>	COS	Transcaucasia	–	IV–XI	VI–VIII
<i>L. erminea</i>	PAL	Transcaucasia	–	VI–XI	VI–VIII
<i>L. satchelli</i>	HOL	Estonia	–	IV–XI	IV–VIII
<i>L. zetterstedti</i>	EUS	Is. Atl.–Pacif., China x Philippine Sea	–	IV–X	VII
<i>P. grisescens</i>	EUR	Transcaucasia, Anatolia, North Africa	–	IV–XI	IV–VIII
<i>P. crassipennis</i>	EUR	Transcaucasia	–	IV–X	VI
<i>P. phalaenoides</i>	HOL	Transcaucasia	–	IV–XI	V–VIII
<i>P. uniformata</i>	HOL	Transcaucasia, Turkey, Iran, Mongolia	–	IV–X	V–VIII
<i>P. cinerea</i>	COS	–	–	VI–X	IV–VIII
<i>P. gemina</i>	EUR	Transcaucasia, Estonia	–	IV–XI	V–VIII
<i>P. itoco</i>	?PAL	–	NS	V–IX	VI–VII
<i>P. minuta</i>	HOL	Estonia	–	IV–IX	VII–VIII
<i>P. mycophila</i>	EUR	–	–	IX	VI
<i>P. trinodulosa</i>	HOL	–	–	IV–XI	IV–VIII
<i>T. alternata</i>	COS	Estonia	–	VI–XI	VII–VIII
<i>T. lativentris</i>	HOL	–	–	V–X	VII–VIII
<i>Y. setigera</i>	HOL	Transcaucasia	–	VII–X	V–VIII
<i>B. kocii</i>	EUR	–	NS	–	VII
<i>C. (B.) dalii</i>	EUR	–	–	–	VI
<i>C. (B.) longicorniculatus</i>	EUR	Estonia, Russia	NS	IV–X	V–VIII
<i>C. (B.) ocellaris</i>	EUR	Lithuania, Russia	–	IV–XI	V–VIII
<i>C. (B.) rivosus</i>	EUR	Lithuania	CR	VII	VII
<i>C. (B.) splendidus</i>	EUR	Estonia, Russia	NS	IV–IX	–
<i>P. subneglecta</i>	EUA	Lithuania, Anatolia	–	IV–IX	VII–VIII
<i>P. (P.) pingarestica</i>	EUR	–	NS	–	VI
<i>P. (P.) blandula</i>	EUR	Transcaucasia, North Africa	–	IV–IX	VII

Table 3. Continued.

species	distribution	extending into	conservation potential	Blaník PLA, occurrence	Labské pískovce PLA, occurrence
<i>P. (P.) fallax</i>	EUS	Transcaucasia	–	IV–IX	–
<i>P. (P.) nielsenii</i>	EUR	–	NS	IV–V	–
<i>P. nubila</i>	EUR	Transcaucasia, Lithuania, Estonia, Canary I., Sardinia	–	IV–IX	VI–VII
<i>P. pilularia</i>	EUR	Transcaucasia, Russia, Lithuania, North Africa	–	X	
<i>P. trivialis</i>	EUR	Transcaucasia, Estonia	–	IV–XI	VI–VIII
<i>T. nigricauda</i>	EUR	Estonia	CR	IV–IX	VII–VIII
<i>T. pulchra</i>	EUR	North Africa	–	IV–X	V–VII
<i>U. a. annulata</i>	EUS	Lithuania	–	IV–VII	–
<i>U. cognata</i>	EUR	Transcaucasia, Lithuania	–	IX	V–VI
<i>U. fuliginosa</i>	EUR	Lithuania	–	IV–X	V–VII

CEU – Central European, COS – cosmopolitan, EUA – Eurasian, EUR – European, EUS – Eurosiberian, HOL – Holarctic, PAL – Palaearctic, SBM – Submediterranean; CR – critically endangered, EN – endangered, VU – vulnerable, NS – nationally scarce.

The detailed systematic list of 62 psychodid species (incl. 1 subspecies) recorded from Blaník and Labské pískovce PLAs with their distribution, conservation potential and occurrence are summarized in Table 3.

A list of species recorded in three amounts: a) both Blaník PLA and Labské pískovce PLA together, b) Blaník PLA and c) Labské pískovce PLA independent is listed below:

a) Blaník PLA and Labské pískovce PLA (41 species, CR 4x, VU 1x, NS 2x): *J. (J.) hygrophila*, *J. (J.) valachica*, *P. denticulatus*, *P. notabilis*, *P. ellisi* – **CR**, *P. prikyrli* – **VU**, *P. pseudolongicornis* – **CR**, *P. polyascoidea*, *P. auriculata*, *S. gressica*, *T. hirtella*, *C. lobata*, *C. brevicornis*, *L. albipennis*, *L. erminea*, *L. satchelli*, *L. zetterstedti*, *P. grisescens*, *P. crassipennis*, *P. phalaenoides*, *P. uniformata*, *P. cinerea*, *P. gemina*, *P. itoco* – **NS**, *P. minuta*, *P. mycophila*, *P. trinodulosa*, *T. alternata*, *T. lativentris*, *Y. setigera*, *C. (B.) longicorniculatus* – **NS**, *C. (B.) ocellaris*, *C. (B.) rivosus* – **CR**, *P. subneglecta*, *P. (P.) blandula*, *P. nubila*, *P. trivialis*, *T. nigricauda* – **CR**, *T. pulchra*, *U. cognata*, *U. fuliginosa*.

b) Blaník PLA (15 species, CR 2x, NS 3x): *J. (J.) soleata*, *J. (P.) hassiaca* – **NS**, *P. consors*, *P. longicornis*, *P. serbica* – **CR**, *P. (D.) ustulata*, *P. integella* – **CR**, *S. carthusiana*, *F. obscura*, *T. lucifugus*, *C. (B.) splendidus* – **NS**, *P. (P.) fallax*, *P. (P.) nielsenii* – **NS**, *P. pilularia*, *U. a. annulata*.

c) Labské pískovce PLA (6 species, CR 1x, EN 1x, NS 3x): *O. andrenipes* – **CR**, *L. rothschildi* – **NS**, *S. labeculosa* – **EN**, *B. kocii* – **NS**, *C. (B.) dali*, *P. (P.) pingarestica* – **NS**.

The species composition recorded in both Blaník PLA and Labské pískovce PLA reflects the high conservation value

of these protected areas. The notable representation of nationally rare and threatened species, including several classified as Critically Endangered (CR) or Vulnerable (VU), suggests the presence of ecologically stable, habitat-specific conditions that support specialized and often relictual invertebrate communities.

Species such as *P. pseudolongicornis*, *P. ellisi*, *T. nigricauda*, and *C. (B.) rivosus*, all classified as CR and occurring in both localities, indicate the existence of habitats with high environmental continuity and minimal anthropogenic disturbance. The occurrence of *S. labeculosa* (EN) in Labské pískovce PLA further highlights the importance of this area as a refugium for species reliant on microclimatically stable conditions, such as shaded ravines and moist forest patches.

In terms of species richness, Blaník PLA harbors a more diverse assemblage (15 species unique to the locality) and a relatively high proportion of nationally scarce taxa (e.g., *P. integella* – CR, *J. (P.) hassiaca* – NS). This suggests a structurally diverse habitat mosaic, likely maintained through traditional land-use practices (e.g., low-intensity mowing, extensive grazing), which fosters the persistence of ecologically demanding or stenotopic species, including saproxylic and psammophilous invertebrates.

Management Recommendations

Blaník PLA: The presence of species associated with semi-natural, structurally heterogeneous habitats supports the continuation of existing management practices, particularly where they involve traditional or low-intensity land use. Specific recommendations include: Maintenance of open or semi-open habitats such as species-rich grasslands.

Retention and restoration of deadwood features and solitary trees. Avoidance of landscape homogenization or afforestation with non-native or invasive tree species. Labské pískovce PLA: Although fewer species were recorded exclusively from this area, the occurrence of highly specialized and endangered taxa indicates conservation significance. Recommended actions include: Protection of microclimatically stable habitats, especially moist ravines and shaded rock outcrops. Restriction of forestry operations in sensitive areas. Long-term population monitoring of threatened taxa to assess trends and potential management needs.

In summary, both Blaník and Labské pískovce PLAs serve as important refuges for rare and endangered invertebrate species. Current management regimes appear generally appropriate and should be maintained, with adjustments made based on continued monitoring and species-specific conservation priorities.

The studied localities have an elevation 400–500 m (hilly areas) and the number of species suitable for needed conservation is analogous, without surprising. Ježek et al. (2021) published a new check list of the family Psychodidae where Bohemia has 147 spp. The summary number of 62 species from recent research now represents therefore 42.2%.

This work represents a continuation of a series of works, e.g. Ježek (2003, 2004, 2006a,b), Ježek & Hájek (2007), Ježek et al. (2008, 2014, 2019, 2021, 2024a,b,c,d), Kroča & Ježek (2015, 2019, 2022), Ježek & Omelková (2012), Omelková & Ježek (2012b) which describe and summarize the biodiversity of the moth flies (Diptera: Psychodidae) in selected regions of the Czech Republic. As mentioned in previous works (e.g. Ježek et al. 2024a,b,c,d) a good knowledge of biodiversity is the basic building block of many research studies, classifications, and last but not least, knowledge of the ecology and biology of selected species. This knowledge can be applied to the protection of endangered species, as well as the management of their habitats.

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