

**A new species of the genus *Trichomyia*  
(Diptera: Psychodidae) and new faunistic data  
on non-*phlebotomine* moth flies from the Podyjí NP  
and its surroundings (Czech Republic)**

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**Abstract.** *Trichomyia hardeggensis* sp. nov. (Psychodidae: Trichomyiinae) is described on the basis of male morphological characters of a specimen collected in the Podyjí National Park in the Czech Republic. New faunistic data from this park, collected in 63 localities in 1995–2003, are presented. Altogether 75 species of 32 genera are known to occur in the Podyjí National Park. Ten of these species were classified in the national Red List of threatened invertebrates – six species are critically endangered (*Trichomyia urbica* Haliday, 1839, *Promormia silesiensis* Ježek, 1983, *Jungiella laminata* (Szabó, 1960), *Parajungiella ellisi* (Withers, 1987), *P. pseudolongicornis* (Wagner, 1975) and *Psycmera integella* (Jung, 1956)) and four species are endangered (*Promormia eatoni* (Tonnoir, 1940), *Threticus incurvus* Krek, 1972, *Pneumia crispi* (Freeman, 1953) and *Tonnoiriella sieberti* Wagner, 1993).

**Key words.** Diptera, Psychodidae, Trichomyiinae, Sycoracinae, Psychodinae, taxonomy, new species, faunistics, Moravia, Czech Republic, Palaearctic Region

### Introduction

*Trichomyia* is a genus of the subfamily Trichomyiinae with 149 species (incl. some fossil taxa) described worldwide to date. The genus is still not satisfactorily subdivided, although it was preliminarily subdivided into two groups by DUCKHOUSE (1965). Altogether 94 species belong to “group B”, 41 species to “group A” and 14 species remain unplaced because the number of the palpomeres is not mentioned in the original paper.

Group A is characterized by 4 palpomeres, palpi bearing a cluster of sensory rods on inner side of second palpomere: the rods long, curved forward, not spatulate, not sunk into a pit.

Flagellomeres elongate cylindrical or elongate pyriform. First flagellomere distinctly larger than second, generally 1.5-2 times its length, and last palpomere diminutive, drop-shaped, excentric, but always separated from fifteenth by a suture. Ascoids various. Gonostyle short, articulated with distal end of gonocoxite.

Group B is characterized by 3 palpomeres, first palpomere larger than second or third, and with group of short, almost straight sensory rods set in a rounded shallow pit on inner side of first palpomere. Antenna with more or less asymmetrical pyriform flagellomeres, generally with articulations eccentric in position and partly recessed into basal bulbs. First flagellomere usually little if any longer than second, and last (sixteenth antennomere) sometimes fused to the penultimate. Ascoids enlarged, digitate, a pair on each of segments 3–15. Gonocoxite bearing an enlarged setaceous process which may be mistaken for the gonostyle. Gonostyle long, tapering, without hairs or setae, articulated beneath basal region of gonocoxite.

This division is rather unclear because both groups A and B lack precise diagnostic or phylogenetic definitions, although a first step towards a phylogenetic analysis of *Trichomyia* has been attempted (see HENNIG 1972, DUCKHOUSE 1978). The described subgenera, *Apotrichomyia* Duckhouse, 1978, *Dactylotrichomyia* Duckhouse, 1978, *Dicrotrichomyia* Duckhouse, 1978, *Gondwanotrichomyia* Duckhouse, 1985, *Septemtrichomyia* Bravo, 1999 and *Opisthotrichomyia* Bravo, 2001 were recorded mainly from tropical areas (DUCKHOUSE 1978, 1985; BRAVO 1999, 2001). They are strongly dissimilar to the species of the genus *Trichomyia* recorded from Europe so far (with only 8 European species, including *T. hardeggensis* sp. nov.).

The new species *T. hardeggensis* sp. nov. conspicuously resembles *T. stephani* Beran, Doczkal, Pfister & Wagner, 2010 in the structure of genitalia (mainly aedeagal complex) and the wing venation. Another common feature associating European species is the habitat in which they are found. All of these species occur at localities related to old forests or single old trees with slowly decaying wood (WITHERS 1989, 2004; BERAN et al. 2010). The new species *T. hardeggensis* sp. nov., was recorded from a similar habitat in the Podyjí National Park.

The only recent literature data on non-phlebotomine moth flies of the Podyjí National Park is one work by JEŽEK et al. (2005). Therefore, along with the description of a new species recorded in the area, this study aims to summarize all available material and records from the area together with remarks on species' occurrence, distribution and conservation.

## Material and methods

Moth flies were collected at 63 localities in the Podyjí National Park and nearby localities during projects researching the insect fauna of this region. This project was organized by the Department of Entomology of the National Museum in 1995–1999. Some additional material, which included specimens of *Trichomyia hardeggensis* sp. nov. and *Philosepedon* (*Philosepedon*) *dumosum* Omelková & Ježek, 2012, was collected by M. Barták and Š. Kubík in 2001–2003. Specimens were collected by Malaise traps, supplemented by sweep-netting.

Captured moth flies were preserved in 70% ethanol in the field and then mounted on slides (Canada balsam) in the laboratory. Types and voucher specimens are deposited in the National Museum, Prague, Czech Republic (NMPC). Slides were numbered in the NMPC: Inv. No. =

Inventory Slide Number of the family Psychodidae and Cat. No. = Catalogue Number of the slide. The catalogue numbers are used for the type material and historical specimens included in the NMPC Diptera collection. Microphotographs were taken with a digital camera mounted on the Nikon TS-100F trinocular eclipse microscope, printed and traced out.

Morphological characters were illustrated by the authors. Wing indices are based on distances between the following points: A = tip of  $R_5$ , B = radial fork, C = medial fork, D = tip of  $CuA_2$ ; the distances are indicated by both extreme points. Maximum wing length is approximately equal to the distance from the line connecting the bases of the basal costal node and neala to the wing apex. Ratios of the lengths of the femur, tibia and first tarsomere, and one of the fore, middle and hind legs are indicated by  $P_1$ ,  $P_2$  and  $P_3$ , respectively.

Terminology used here follows DUCKHOUSE (1965), JEŽEK (1990), WAGNER (2001) and BERAN et al. (2010). Nomenclature is according to JEŽEK (2009) and categories of conservation follow JEŽEK (2005). Our knowledge about distribution of all species was supplemented using WAGNER (1990, 2007).

The following abbreviations were used throughout the text: NP = National Park, NMPC = slide collection of the National Museum in Prague, MT = Malaise trap, SW = sweep netting.

## Taxonomy of genus *Trichomyia*

### *Trichomyia* Haliday, 1839

*Trichomyia* Haliday, 1839 in CURTIS (1839): 745. Type species: *Trichomyia urbica* Haliday, 1839, by monotypy.

*Diplonema* Loew, 1845: 7. Type species: *Diplonema buceras* Loew, 1845, by monotypy.

*Phalaeomyia* Loew, 1845: 9, 10. Type species: *Diplonema buceras* Loew, 1845, subsequent designation by EVENHUIS (1994).

*Termitodipteron* Holmgren, 1905: 533. Type species: *Termitodipteron wasmanni* Holmgren, 1905, by monotypy.

*Lepria* Enderlein, 1937: 112. Type species: *Lepria squamosa* Enderlein, 1937, original designation.

*Eubonetia* Vargas & Diaz Nájera, 1953: 155. Type species: *Trichomyia cirrata* Coquillett, 1902, original designation.

*Apotrichomyia* Duckhouse, 1978: 211 (as subgenus). Type species: *Trichomyia complexa* Duckhouse, 1965, original designation.

*Dactylotrichomyia* Duckhouse, 1978: 213 (as subgenus). Type species: *Trichomyia tanypenis* Duckhouse, 1978, original designation.

*Dicrotrichomyia* Duckhouse, 1978: 204 (as subgenus). Type species: *Trichomyia leei* Duckhouse, 1965, original designation.

*Gondwanotrichomyia*: DUCKHOUSE (1980): 184 (as subgenus). Unavailable name; genus-group name proposed after 1930 without type-species designation.

*Gondwanotrichomyia* Duckhouse, 1985: 355 (as subgenus). Type species: *Trichomyia nodosa* Duckhouse, 1980, original designation.

*Septemtrichomyia* Bravo, 1999: 1 (as subgenus). Type species: *Trichomyia botosaneanui* Wagner, 1993, original designation.

*Opisthotrichomyia* Bravo, 2001: 50 (as subgenus). Type species: *Psychoda brevitarsa* Rapp, 1945, original designation.

*Trichomyia* (lapsus calami): ANONYMOUS (1990): 16; DRABER-MOŇKO (1991): 86.

*Trichomyia* (lapsus calami): QUATE (1996): 5 (index).

**Note.** A list of detailed old nomina nuda was published by EVENHUIS (1994).

*Trichomyia hardeggensis* sp. nov.

(Figs. 1–24)

**Type locality.** Czech Republic, south-western Moravia, Dyje river valley between the towns of Vranov nad Dyjí (in the west) and Znojmo (in the east) along the Czech-Austrian state border, forest, 420 m a.s.l., 48°51'30"N 15°51'35"E.

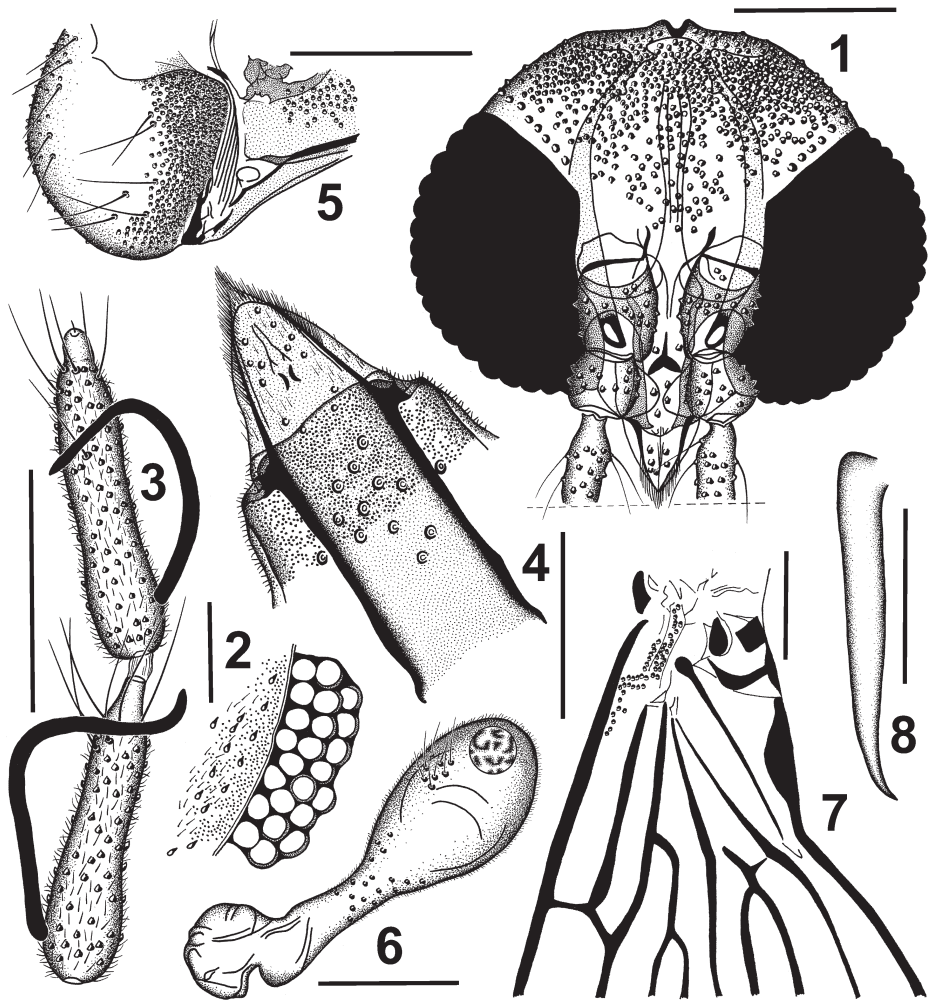
**Type material.** HOLOTYPE: ♂, South Moravia, Podyjí NP, Hardegg, creek near view point, forest, 420 m a.s.l., 48°51'30"N 15°51'35"E, 21.v.–12.vi.2003, MT, M. Barták and Š. Kubík leg., Slide Cat. No. 34622, Inv. No. 19879 (NMPC).

**Description. Male.** Head (Figs. 1, 9) distinctly broader than high (1.5 : 1, measured to the base of mouth parts), rounded in the area of vertex (Fig. 9), with two small sclerotized protuberances terminally, divided by a deep cleft (Fig. 1). Eyes large, widely separated, hardly as wide as frons, with an eye fold (compare caudal view in Figs. 2, 9). Facets as in Fig. 2. Foramen magnum oval, sclerotized, with characteristic protuberances (wings) terminally (Figs. 1, 9). Supraocular lateral bristles long (6–8, see conspicuous setae alveoli), isolated on the dorsal margins of eyes, forming one line (Fig. 1), in contrast to the back fold with two lines medially (Fig. 9). Vertex densely haired, with a ventral ostensible triangular extension of not densely spaced alveoli, frontoclypeus with only several scattered alveoli near mouthparts.

The antennae are 15-partite (Figs. 3, 10) and haired. Scape short, asymmetrically barrel-shaped, pedicel spherical, shorter than longest side of scape (Fig. 10). First flagellomere spindle shaped, elongate, 1.7 times as long as pedicel, following flagellomeres tear-shaped with a pair of simple ascoids, which are very long (mostly longer than the flagellomere) and flaunted. The last two antennomeres are rod-shaped, slightly narrowed in the central part, the terminal flagellomere with a short thick apiculus (digit) carrying very small sensory seta apically.

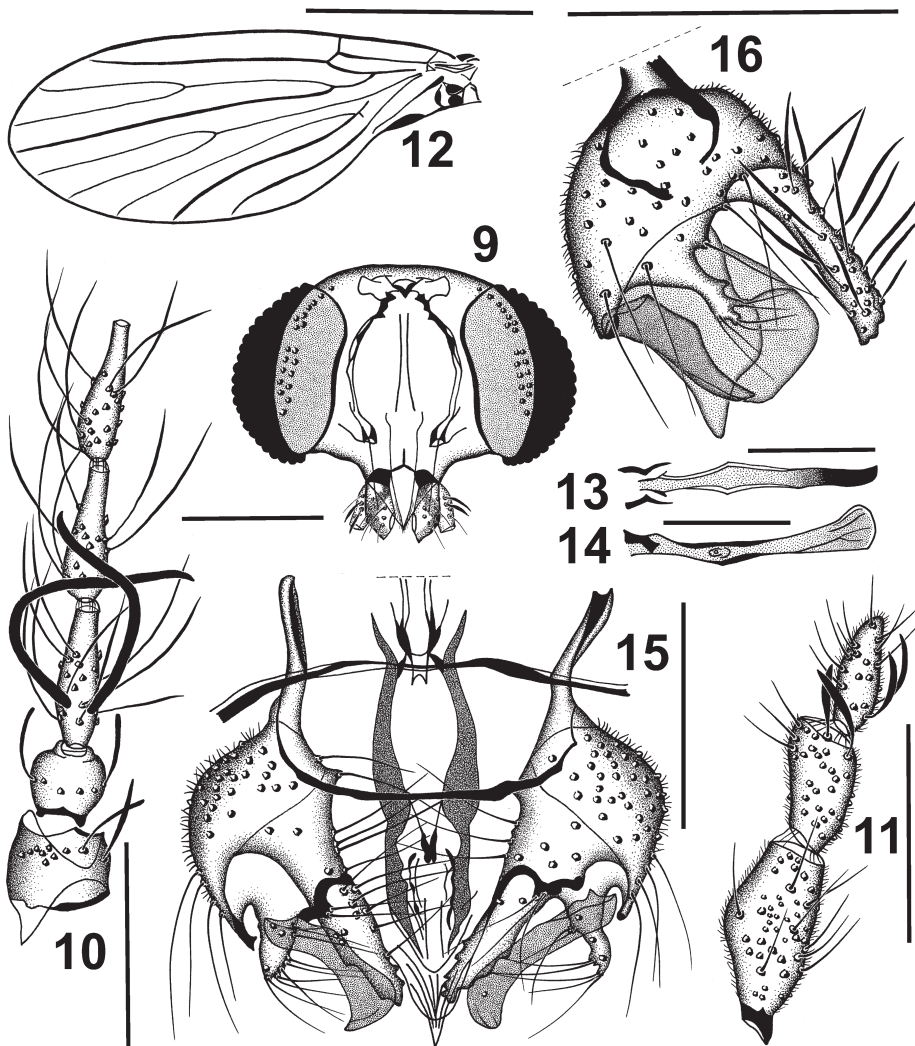
The mouthparts inconspicuously extend beyond the basal palpomere (Fig. 9). Maxillary palpus 3-partite (Figs. 11, 17), basal palpomere irregularly spindle-shaped from different views, widened in the middle, with a circular sensory depression (presumably normally carrying cluster of sensilla) in the second third, second palpomere almost cylindrical and terminal palpomere elongated, ovoid. The length ratios of the maxillary palpomeres: 1.9 : 1.0 : 1.0. Maxilla approximately as long as the first palpomere, with sparse short hairs (Figs. 17, 18). Origin of labial apodeme tridentate with two parallel narrow rods, the cleft between haired terminal lobes of the labium has a shallow apical concavity (Fig. 19). The ratio of the maximum length of the cibarium to the length of the epipharynx is 1.5 : 1, labrum with sparse alveoli (Figs. 1, 4).

Thorax elongate, low humped, thoracic sclerites as in Fig. 20, spiracular area as in Fig. 5. Wings (Figs. 7, 12) narrowly lancet-shaped, 2.4 mm long, almost translucent, only inconspicuously fuscous, with anal area slightly enlarged, both forks before level of tip of CuA<sub>2</sub> (medial fork undistinguished almost at the same level). Sc long, strengthened distally and terminating both in C and R<sub>1</sub>, crossvein sc-r. Ends of R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4+5</sub>, M<sub>1</sub>, M<sub>2</sub>, M<sub>3</sub>, CuA<sub>1</sub>, CuA<sub>2</sub> and A<sub>1</sub> weakened. R<sub>1</sub> strengthened, shortly bent to the crossvein connection, straight distally. R<sub>2+3+4+5</sub> very short, bent and strengthened. R<sub>4+5</sub> only inconspicuously bent to radial fork, strengthened, extending distally to reach wing margin below apex of the wing. CuA<sub>1</sub> and CuA<sub>2</sub> conspicuously strengthened, A<sub>1</sub> only basally. Not strengthened veins: R<sub>2+3</sub>, R<sub>2</sub>, R<sub>3</sub>, M<sub>1+2</sub>, M<sub>1</sub>, M<sub>2</sub>, M<sub>3</sub>, CuA<sub>2</sub> basally and A<sub>1</sub> distally. M<sub>3</sub> connected basally with CuA<sub>1</sub> close to a



Figs. 1–8. *Trichomyia hardeggensis* sp. nov., male: 1 – head (supraocular lateral bristles omitted, only setae alveoli marked); 2 – facets, caudal view of eye fold; 3 – terminal antennomeres; 4 – cibarium, epipharynx and labrum, dorsal view; 5 – thorax, fore part with spiracular area, lateral view; 6 – haltere; 7 – wing, basal part in detail; 8 – claw of  $P_1$ . Scales: 2–4, 6 = 0.1 mm; 1, 5, 7 = 0.2 mm; 8 = 0.01 mm.

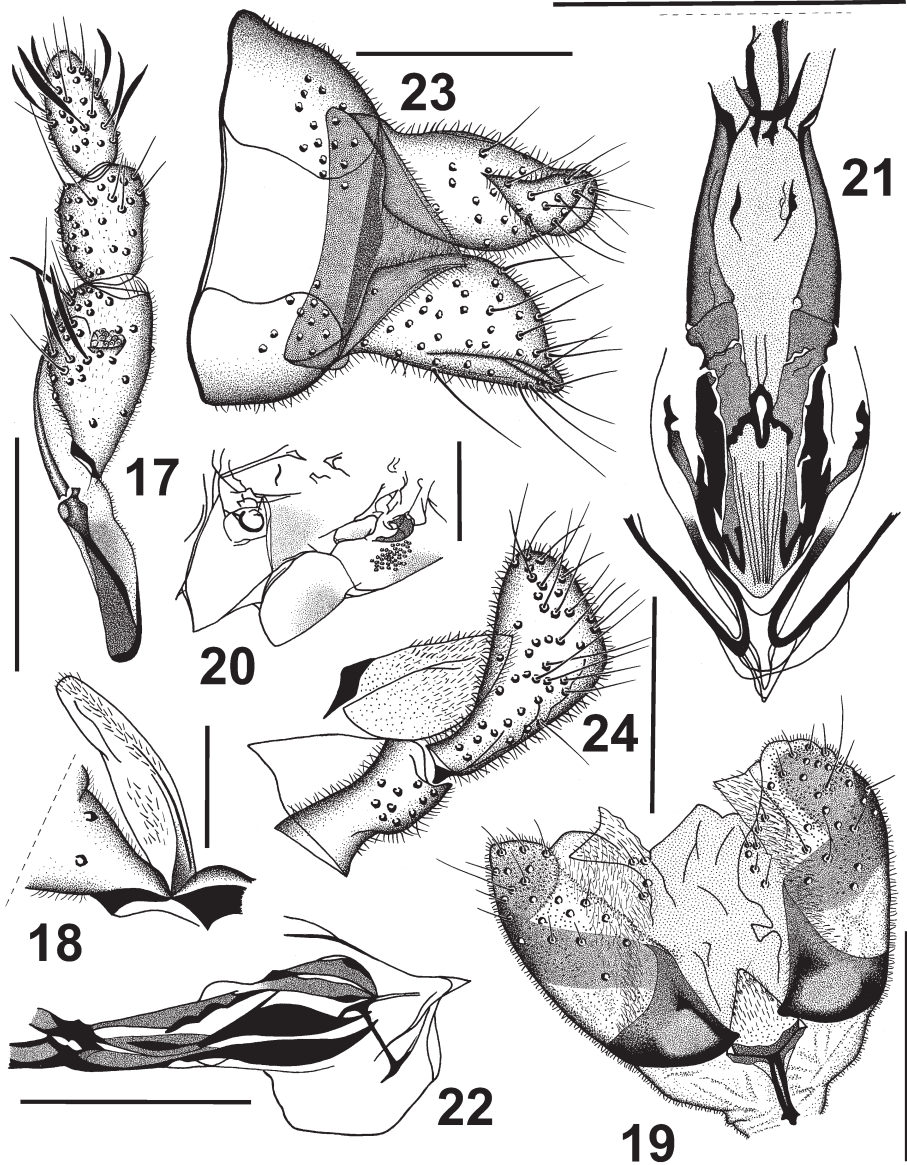
short trace of a crossvein sc-r. Wing indices  $AB : AC : AD = 3.3 : 3.7 : 4.1$ ;  $BC : CD : BD = 1.0 : 1.5 : 2.5$ . Maximum wing length equal to 2.5 times its maximum width. Median wing angle is  $159^\circ$  (BCD). Neala not developed, anal area with characteristic patches of alveoli (see detail in Fig. 7). Halteres (Fig. 6) knob(stick)-shaped, setose and haired, surface finely corrugated, maximum length of haltere (measured to the basal constriction) equals 2.7 times its maximum width. Ratios of lengths of femora, tibiae and first tarsomeres:  $P_1 = 1.4 : 1.4 :$



Figs. 9–16. *Trichomyia hardeggensis* sp. nov., male: 9 – head, caudal view; 10 – basal antennomeres; 11 – palpus maxillaris, dorsal view; 12 – wing; 13 – basal apodeme of aedeagal complex, dorsal view; 14 – same, lateral view; 15 – aedeagal complex and gonopods, dorsal view; 16 – gonopod and a part of aedeagus, lateral view. Scales: 11, 13–16 = 0.1 mm; 10 = 0.2 mm; 9 = 0.3 mm; 12 = 1 mm.

1.1;  $P_2 = 1.6 : 1.9 : 1.1$ ;  $P_3 = 1.7 : 2.3 : 1.0$ ; fore claws (Fig. 8) very long and straight, tapering gradually (not abruptly), a little bent distally, bare.

Basal apodeme of male genitalia from dorsal view narrow, a little widened in the middle, almost straight (Fig. 13), inconspicuously bent in lateral view, with spatulate ending proximally (Fig. 14). Aedeagal complex (Figs. 15, 21, 22) with a clear developed ovoid aedeagal chamber bordered by wide flattened rods, which are beside the end of a very narrow sclerotized slot



Figs. 17–24. *Trichomyia hardeggensis* sp. nov., male: 17 – maxilla and maxillary palpus, lateral view; 18 – maxilla; 19 – terminal lobes of labium; 20 – thoracic sclerites, lateral view; 21 – aedeagal complex, dorsal view; 22 – same, diagonal view; 23 – epandrium and surstyli, dorsal view; 24 – same, lateral view. Scales: 18–19, 21–24 = 0.1 mm; 17, 20 = 0.2 mm.

Table 1. Comparison of male morphological characters of *T. hardeggensis* sp. nov. and *T. stephani* Beran, Doczkal, Pfister & Wagner, 2010.

Character	<i>T. hardeggensis</i> sp. nov.	<i>T. stephani</i>
wing angle	159° (Fig. 12)	149°
wing length	2.4 mm (Fig. 12)	1.9–2.0 mm
cross vein r-m	missing (Fig. 12)	developed
cross vein CuA <sub>1</sub> -m	missing (Fig. 12)	developed
cross vein CuA <sub>1</sub> -CuA <sub>2</sub>	missing (Fig. 12)	developed
neala	not developed (Fig. 12)	developed
ends of wing veins (except of Sc)	weakened (Fig. 12)	not weakened
aedeagal complex	closed in a membranous pointed sac formed by several layers (Figs. 15, 21, 22)	free, only the membranous sac missing
basal apodeme of aedeagal complex distally	not split in dorsal view (Fig. 13)	split
lateral arms of aedeagus	not fully developed, fused partially, and not perfectly bordered (Figs. 15, 21)	fully developed, perfectly bordered, straight, sometimes in upright position
auxiliary transverse rib at the end of aedeagal complex	developed (Fig. 22)	missing
prominent ventral process of gonocoxite covered with a row of strong bristles	fully (whole margin) (Figs. 15, 16)	partially (only in a distal part of the margin)
gonostylus	hooked (Figs. 15, 16)	not hooked

(chink). They converge to the sclerotized tooth-like protuberances with parallel backward going V-shaped lateral arms, which are irregularly formed. Aedeagal complex is fixed in a pointed membranous sac composed of several folded layers. The auxiliary transverse rib at the end of aedeagal complex is developed and conspicuous (Fig. 22). Gonocoxites swollen, basally with an elongate and narrow proximal apodeme; distally with two processes: a long prominent ventral process, covered with a row of strong bristles along its whole inner margin; and a not so prominent short and broad ventral process with several tips bearing strong setae. Small additional distal protuberances present, see Figs. 15 and 16. Articulated gonostyli slightly bent and flattened, subapically hooked, as long as the aedeagal chamber (Figs. 15, 16). Epandrium trapezoidal, sporadically setose on both sides, central aperture not developed (Figs. 23, 24). Remainers of 10<sup>th</sup> tergum and sternum inside of epandrium only membranous. Hypandrium narrow. Hypoproct obtusely triangular with narrowly rectangular base, epiproct inconspicuous, fold-shaped. Both parts haired. Surstyli (Figs. 23, 24) large, leaf (blade)-shaped, setose, without tenacula.

**Female** unknown.

**Differential diagnosis.** The species described above has palpi with three palpomeres which is a character of the group B *sensu* DUCKHOUSE (1965) and is close genealogically with the species of subgenera *Apotrichomyia* Duckhouse, 1978, *Dactylotrichomyia* Duckhouse, 1978, *Dicrotrichomyia* Duckhouse, 1978 and *Septemtrichomyia* Bravo, 1999 in contrast to the species



with four palpomeres of subgenera *Gondwanotrichomyia* Duckhouse, 1985 and *Opisthotrichomyia* Bravo, 2001, both constituting group A *sensu* DUCKHOUSE (1965). The elongate digit of the gonocoxite is reminiscent of *Dactylotrichomyia* Duckhouse, 1978; except in *Dactylotrichomyia* it is lateral rather than medial. A medial process is present in *Dicrotrichomyia* but this is not setose as it is in *Trichomyia hardeggensis* sp. nov. However, it is premature to assign the species to any extant subgenus until more information becomes available.

The shape and the construction of the aedeagal complex in *Trichomyia hardeggensis* sp. nov. is unique compared with other *Trichomyia*. However, especially the male gonopods are very closely similar to *T. stephani* Beran, Doczkal, Pfister & Wagner, 2010; differences between males of the two species are summarized in Table 1.

**Etymology.** The species name is derived from the name of Hardegg (from the old German words ‘hard’ = forest and ‘egg’ = rock, stone; figuratively meaning ‘strong house in the forest’), a small town in Austria, and adjacent view point on the opposite Moravian bank of the Dyje/Thaya river, both localities being situated in the Podyjí/Thayatal NP.

**Biology.** Unknown.

**Distribution.** So far known only from the type locality in the southern Moravia (Czech Republic).

#### List of European species of the genus *Trichomyia*

*carlestolrai* Wagner, 2001 (group A) – Spain

*hardeggensis* sp. nov. (group B) – Czech Republic

*kostovi* Ježek, 1990 (group B) – Bulgaria

*malickyi* Wagner, 1982 (group B) – Greece

*minima* Withers, 2004 (group B) – England

*parvula* Szabo, 1960 (group B) – Czech Republic, Germany, Great Britain, Hungary

*stephani* Beran, Doczkal, Pfister & Wagner, 2010 (group B) – Germany

*urbica* Haliday, 1839 in CURTIS (1839) (group A and as well group B) – widespread in Europe

#### Faunistic survey of Psychodidae of Podyjí NP and its surroundings

**List of collecting sites.** The description of each collecting site is arranged as follows: number of locality, name of the nearest village or town (incl. a code of the Czech faunistic grid mapping (ZELENÝ 1972, PRUNER & MÍKA 1996)), local name of the collecting site or name of a small-scale protected area (reserve), habitat, vegetation (dominant plant taxa), date, collector and methods of collecting.

1. **Mašovice, Andělský Mlýn (7161)**; brook near gamekeeper’s lodge, *Pinus, Carpinus, Alnus, Tilia, Acer, Pulmonaria, Hepatica, Galium, Geum*, Apiaceae, Lamiaceae, Musci, 11.vi.1998, Ježek lgt., SW.
2. **Hnanice, Šobes, Baštův Mlýn (7161)**; mill by Dyje river and small pond, *Alnus, Ulmus, Salix, Juglans, Crataegus, Sambucus, Corylus, Aegopodium, Filipendula, Urtica*, Pteropsida, 28.v.1995 and 14.vi.1998, Ježek lgt., SW.
3. **Bezkov, pond (7161)**; drainage pond outlet, *Alnus, Salix, Sambucus, Phragmites, Typha, Urtica*, Apiaceae, 25.ix.1995, Ježek lgt., SW.
4. **Vranov nad Dyjí, Braitava (7160)**; forest edge with rills, meadows and swamps, muddy slough, *Alnetum, Sambucus, Carpinus, Rubus, Urtica, Caltha, Galium, Impatiens*, 1.vi. and 22.ix.1995, Ježek lgt., SW.
5. **Vranov nad Dyjí, Rybníky U Jekala (7160)**; drainage pond outlets, swamps, *Acer, Quercus, Alnus, Pinus, Pirus, Carpinus, Betula, Rubus, Scirpus, Urtica, Phragmites*, Poaceae, Musci, 1.vi. and 22.ix.1995, Ježek lgt., SW.

6. **Chvalovice, Daníž brook (7262)**; small village pond with drainage outlet, *Populus, Sambucus, Salix, Robinia, Urtica, Butomus, Alisma, Lappa, Lemna*, 15.vi.1998, Ježek lgt., SW.
7. **Citonice, Mramotický potok brook (7161)**; brooklet, *Populus, Sambucus, Crataegus, Cerasus, Rosa, Phragmites, Urtica, Galium, Caltha, Lappa, Geum*, 12.vi.1998, Ježek lgt., SW.
8. **Citonice, Na hájkách (7161)**; forest range with a pond, *Salix, Pinus, Betula, Populus, Mentha, Scirpus, Typha, Caltha, Lychnis*, 28.v.1995, Ježek lgt., SW.
9. **Citonice (7161)**; polluted gutter in the village, *Tilia, Sorbus, Sambucus, Ribes, Caltha, Typha, Urtica*, Poaceae, 27.v.1995, Ježek lgt., SW.
10. **Olbramkostel, Černá Hlína (7061)**; arable area, drainage pond outlet near forest edge, *Alnus, Scirpus, Urtica, Galium, Caltha, Carex, Rubus, Carduus*, Poaceae, 10.vi.1998, Ježek lgt., SW.
11. **Čížov, Klaperův potok brook (7161)**; rivulet, *Alnus, Salix, Carpinus, Picea, Crataegus, Quercus, Pinus, Galium, Nasturtium*, 30.v.1995, Ježek lgt., SW.
12. **Čížov, marshes (7161)**; swamps in the vicinity of a village, *Alnetum, Salix, Fraxinus, Populus, Sambucus, Scirpus, Typha, Mentha, Lappa, Urtica*, 21.ix.1995, Ježek lgt., SW.
13. **Čížov, pond (7161)**; small pond north-east of the village, marshes, *Alnus, Salix, Filipendula, Myosotis, Caltha, Scirpus, Urtica, Nasturtium, Typha*, 30.v.1995, Ježek lgt., SW.
14. **Čížov, drainage ditch (7161)**; gutter north of the village, swamps, forest, *Betula, Pinus, Alnus, Sambucus, Scirpus, Urtica*, 25.ix.1995, Ježek lgt., SW.
15. **Čížov, rills (7161)**; forest brooklets in the vicinity of a village, *Tilia, Corylus, Alnus, Caltha, Nasturtium, Geum, Urtica, Galium, Pteropsida*, 31.v.1995, Ježek lgt., SW.
16. **Hnanice, Devět Mlýnů (7161)**; mills by the Dyje river near Fládnická chata hut, *Ulmus, Corylus, Salix, Robinia, Sambucus, Petasites, Urtica, Calamagrostis, Galium, Geranium*, 9.vi.1998, Ježek lgt., SW.
17. **Nesachleby (7162)**; shore of island in Dyje river, *Populus, Salix, Prunus, Urtica, Calamagrostis, Symphytum, Galium, Lysimachia, Impatiens*, 17.vi.1998, Ježek lgt., SW.
18. **Dyjákovičky, Huťský potok brook (7262)**; creek in fields, *Populus, Sambucus, Fraxinus, Urtica, Geum, Phragmites, Galium*, Poaceae, 15.vi.1998, Ježek lgt., SW.
19. **Hnanice, Gruberův pramen spring (7161)**; a fountain in the vicinity of Devět Mlýnů and the overhead (hanging) bridge to Šobes, rill and marshes, *Alnus, Sambucus, Robinia, Galium, Ranunculus*, Poaceae, 9.vi.1998, Ježek lgt., SW.
20. **Hardegg, river (7161)**; banks of the Dyje river, 20.ix.1993, Chvojka lgt., SW.
21. **Hardegg, brook (7161)**; creek near view point, 19.v.1992, Chvojka lgt., SW.
22. **Havraníky, Havranické vřesoviště, pond (7161)**; heathland, water reservoir, *Salix, Alnus, Rubus, Typha, Urtica*, 29.v.1995, Ježek lgt., SW.
23. **Havraníky, Havranické vřesoviště, spring (7161)**; heathland, well west of the village, *Tilia, Robinia, Sambucus, Acer, Pinus, Juglans, Rosa, Urtica*, Musci, 29.v.1995, Ježek lgt., SW.
24. **Hnanice, pond (7161)**; affluent of a settlement pond, polluted rill, litter, *Salix, Sambucus, Alnus, Crataegus, Aegopodium*, 9.vi.1998, Ježek lgt., SW.
25. **Hnanice, canal of irrigation (7261)**; fields, marshes, *Salix, Alnus, Sambucus, Symphytum, Carex, Lysimachia, Mentha, Rubus, Leonurus*, 9.vi.1998, Ježek lgt., SW.
26. **Horní Břečkov, pond (7161)**; outlet of discharged water reservoir south-east of the settlement, drainage, swamps, *Alnus, Salix, Sambucus, Scirpus, Mentha, Aegopodium, Caltha, Symphytum, Urtica*, 31.v. and 25.ix.1995, Ježek lgt., SW.
27. **Znojmo, Granický potok brook (7162)**; creek, swamps, *Aesculus, Alnus, Acer, Fraxinus, Tilia, Trollius, Aegopodium*, 27.v.1995, Ježek lgt., SW.
28. **Znojmo, river nr. Kraví hora hill (7162)**; banks of the Dyje river at the foot of Kraví hora hill, *Salix, Alnus, Sambucus, Robinia, Calamagrostis, Rosa*, Apiaceae, Poaceae, 29.v.1995, Ježek lgt., SW.
29. **Kravsko, Plenkovický potok brook (7061)**; water flow, *Populus, Fraxinus, Carpinus, Acer, Crataegus, Urtica, Impatiens, Geum, Galium, Aegopodium*, 12.vi.1998, Ježek lgt., SW.
30. **Zadní Hamry, Ledové sluje (7161)**; bank ledges of the Dyje river near caves, *Salix, Fraxinus, Calamagrostis, Urtica*, 31.v.1995, Ježek lgt., SW.
31. **Vranov nad Dyjí, Lesná (7061)**; forest pond, pig farm, *Alnus, Carpinus, Tilia, Betula, Salix, Juncus, Carex, Scirpus, Lychnis, Geum, Lemna, Nasturtium, Urtica, Aegopodium*, Apiaceae, 31.v. and 24.ix.1995, Ježek lgt., SW.

32. **Mašovice, brook (7061)**; creek, *Carpinus*, *Alnus*, *Fraxinus*, *Quercus*, *Aegopodium*, *Impatiens*, *Urtica*, *Galium*, 11.vi.1998, Ježek lgt., SW.
33. **Plenkovice, Plenkovičský rybník pond (7061)**; water reservoir, *Alnus*, *Fraxinus*, *Salix*, *Typha*, *Caltha*, *Carex*, *Impatiens*, *Lemna*, *Urtica*, *Telekia*, *Galium*, Poaceae, 12.vi.1998, Ježek lgt., SW.
34. **Mramotice, Pílský rybník pond (7061)**; drainage pond outlet in forest edge, *Pinus*, *Sambucus*, *Crataegus*, *Quercus*, *Urtica*, *Symphytum*, Poaceae, 12.vi.1998, Ježek lgt., SW.
35. **Podmolí, very small lake (7161)**; forest water reservoir near Čerchov 438.1 m a.s.l., *Populus*, *Betula*, *Alnus*, *Typha*, *Phragmites*, *Carex*, *Juncus*, 28.v.1995, Ježek lgt., SW.
36. **Podmolí, trickle (7161)**; polluted forest rill near Čerchov hill, swamps, rubbish, *Picea*, *Sambucus*, *Salix*, *Caltha*, *Carex*, *Juncus*, *Urtica*, *Equisetum*, 28.v.1995, Ježek lgt., SW.
37. **Podmolí, Žlebský potok brook (7161)**; small water flow near Čerchov hill, muddy forest pools and wallowing grounds, *Betula*, *Larix*, *Carpinus*, *Acer*, *Ranunculus*, Pteropsida, 20.v.1992 and 28.v.1995, Chvojka & Ježek lgt., SW.
38. **Popice, pond (7162)**; water reservoir and polluted gutter, *Populus*, *Acer*, *Sambucus*, *Salix*, *Betula*, *Robinia*, *Juncus*, *Lappa*, *Phragmites*, *Urtica*, Apiaceae, Poaceae, 29.v.1995, Ježek lgt., SW.
39. **Šafov, Cihelný rybník pond (7160)**; water reservoir, field gutter, *Salix*, *Betula*, *Sambucus*, *Typha*, *Artemisia*, 22.ix.1995, Ježek lgt., SW.
40. **Šafov, Janský rybník pond (7160)**; water reservoir, *Salix*, *Typha*, *Calamagrostis*, *Rumex*, *Polygonum*, *Lappa*, Poaceae, 22.ix.1995, Ježek lgt., SW.
41. **Šafov (7160)**; wet rubbish near village churchyard, *Quercus*, *Fraxinus*, *Sambucus*, *Calamagrostis*, *Urtica*, *Lappa*, 22.ix.1995, Ježek lgt., SW.
42. **Šatov (7262)**; sediments of water effluent from a ceramic factory in a small forest, *Populus*, *Sambucus*, *Crataegus*, *Urtica*, *Galium*, *Geum*, Poaceae, Apiaceae, 15.vi.1998, Ježek lgt., SW.
43. **Olbramkostel, Šimberk – hájovna (7161)**; gamekeeper's lodge, forest canal, *Quercus*, *Picea*, *Alnus*, *Tilia*, *Sambucus*, *Iris*, *Urtica*, *Rubus*, Pteropsida, 24.ix.1995, Ježek lgt., SW.
44. **Olbramkostel, Vlkov pond (7061)**; water reservoir near Šimperk castle, small marshes, forest meadows, *Salix*, *Quercus*, *Alnus*, *Typha*, *Impatiens*, *Phragmites*, *Juncus*, 24.ix.1995, Ježek lgt., SW.
45. **Hnanice, Šobes vineyard and Nad papírnou hills (7161)**; bottomland, rocky walls in a deep canyon of the Dyje river, 20.viii.1997, Macek lgt., MT.
46. **Hnanice, Šobes vineyard, river (7161)**; alluvial banks of the Dyje river, *Alnus*, *Corylus*, *Crataegus*, *Acer*, *Pinus*, *Urtica*, *Lilium*, *Impatiens*, *Stachys*, *Galium*, *Lappa*, Apiaceae, 14.vi.1998, Ježek lgt., SW.
47. **Hnanice, Šobes vineyard, meander (7161)**; part of the Dyje river near elevation point 400.6 m a.s.l.; flood-plain, rapids, branches above the water surface, *Salix*, *Alnus*, *Betula*, *Crataegus*, *Sambucus*, *Robinia*, *Calamagrostis*, *Mentha*, *Aegopodium*, *Urtica*, Musci, Poaceae, 28.v.1995 and 14.vi.1998, Ježek lgt., SW.
48. **Štítary, Dolní Štítarský rybník pond (7061)**; water reservoir, *Quercus*, *Pinus*, *Crataegus*, *Cornus*, *Typha*, *Lemna*, *Urtica*, *Polygonum*, *Auricula*, Musci, 23.ix.1995, Ježek lgt., SW.
49. **Štítary, brook (7061)**; forest brook, *Alnus*, *Carpinus*, *Crataegus*, *Euonymus*, *Carex*, *Cyclamen*, *Aegopodium*, *Asarum*, 23.ix.1995, Ježek lgt., SW.
50. **Štítary, Horní Štítarský rybník pond (7061)**; drainage pond outlet, *Fraxinus*, *Corylus*, *Euonymus*, *Urtica*, *Comarum*, *Scirpus*, *Carex*, *Solanum*, 23.ix.1995, Ježek lgt., SW.
51. **Štítary, village vicinity (7061)**; 9.–13.viii.1993, Studničková lgt., collected by blue light emitter.
52. **Štítary, runnel (7061)**; field rill, *Alnus*, *Sambucus*, *Betula*, *Urtica*, *Rumex*, *Artemisia*, 23.ix.1995, Ježek lgt., SW.
53. **Vranov nad Dyjí, Šumná (7061)**; drainage outlet from small pond, slough, *Quercus*, *Carpinus*, *Alnus*, *Impatiens*, *Urtica*, 23.ix.1995, Ježek lgt., SW.
54. **Olbramkostel, Vracovice, Polní rybník pond (7061)**; water reservoir and canal, *Betula*, *Sambucus*, *Tilia*, *Alnus*, *Salix*, *Urtica*, *Phragmites*, Poaceae, 24.ix.1995, Ježek lgt., SW.
55. **Olbramkostel, Vracovice, Vracovický rybník pond (7161)**; water reservoir, *Populus*, *Salix*, *Alnus*, *Sambucus*, *Phragmites*, *Typha*, *Symphytum*, 24.ix.1995, Ježek lgt., SW.
56. **Vranov nad Dyjí, river (7160)**; alluvium of the Dyje river, 19.v.1992, Chvojka lgt., SW.
57. **Olbramkostel, Vranovská Ves, Jankovec pond (7061)**; forest drainage outlet, seepage, *Picea*, *Pinus*, *Corylus*, *Alnus*, *Carpinus*, *Ribes*, *Urtica*, *Convallaria*, Poaceae, 10.vi.1998, Ježek lgt., SW.
58. **Horní Břečkov, Vranovské brány, pond (7161)**; forest range near Větrník 509.8 m a.s.l., small water reservoir, slough, *Alnus*, *Betula*, *Scirpus*, *Urtica*, 25.ix.1995, Ježek lgt., SW.

- 59. Horní Břečkov, Vranovské brány, swamps (7161);** forest range near Větrník hill with a country-seat, marshes, *Carpinus, Quercus, Corylus, Pinus, Picea*, Pteropsida, 24.ix.1995, Ježek lgt., SW.
- 60. Vrbovec, Vrbovecký potok brook (7262);** village vicinity, fallen robust trunks, swamps (Alnetum), *Salix, Sambucus, Rubus, Ribes, Caltha, Carex, Calamagrostis, Convolvulus, Leonurus, Alisma, Ranunculus*, 15.vi.1998, Ježek lgt., SW.
- 61. Znojmo – Bohumilice, meanders (7162);** abandoned arms of the Dyje river with standing water, *Populus, Salix, Sambucus, Crataegus, Urtica, Calamagrostis, Symphytum, Lemna*, 16.vi.1998, Ježek lgt., SW.
- 62. Znojmo – Na vyhlídce (7162);** brook, rocky terraces, *Acer, Fraxinus, Alnus, Carpinus, Crataegus, Hedera, Aegopodium, Ranunculus*, Musci, 27.v.1995, Ježek lgt., SW.
- 63. Znojmo, Trouznické údolí valley (7162);** water reservoir southwest of the town, swamps, *Carpinus, Robinia, Salix, Tilia, Pinus, Betula, Rosa, Urtica*, Pteropsida, 29.v.1995, Ježek lgt., SW.

**List of species.** Each record is arranged as follows: name of the collecting site, number of the collecting site (in parentheses), month of collection (only the date of Malaise trap emptying is given), number of males and females and inventory slide number of the family Psychodidae.

### *Clytocyclus (Boreoclytocyclus) ocellaris (Meigen, 1804)*

**Published records.** Hnanice, Horní Břečkov, Čížovský rybník pond, Ledové sluje caves, Vraní skála rock, Hardegg vyhlídka view point, Devět Mlýnů (JEŽEK et al. 2005).

**Material examined.** Vranov nad Dyjí, Braitava (4), ♂, ix., Inv. No. 5375; Vranov nad Dyjí, Rybníky U Jekala (5), 2 ♂♂, vi. and ix., Inv. No. 5360 and 6807; Citonice, Na hájkách (8), ♂, v., Inv. No. 6059; Čížov, marshes (12), ♂, ix., Inv. No. 5352; Čížov, rills (15), ♂, v., Inv. No. 6044; Hnanice, canal of irrigation (25), ♂, vi., Inv. No. 7581; Podmolí, trickle (36), ♂, v., Inv. No. 5334; Šafov, Cihelný rybník pond (39), ♂, ix., Inv. No. 6784; Šafov (41), ♂, ix., Inv. No. 5993; Olbramkostel, Vlkov pond (44), ♂, ix., Inv. No. 6806; Štítary, Dolní Štítarský rybník pond (48), ♂, ix., Inv. No. 8308; Štítary, brook (49), ♂, ix., Inv. No. 6032; Štítary, village vicinity (51), ♂, viii., Inv. No. 6791; Štítary, runnel (52), ♂, ix., Inv. No. 6066; Vranov nad Dyjí, river (56), ♂, v., Inv. No. 6792; Horní Břečkov, Vranovské brány, pond (58), ♂, ix., Inv. No. 6005; Vrbovec, Vrbovecký potok brook (60), 2 ♂♂, vi., Inv. No. 7585 and 8336.

**Comment.** A very common 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. Its larvae inhabit rills, marshes, bottomlands of brooks and the littoral zone of water reservoirs, ponds.

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

**Published records.** Čížovský rybník pond (JEŽEK et al. 2005).

**Material examined.** Čížov, pond (13), ♀, v., Inv. No. 6826; Čížov, rills (15), ♂, v., Inv. No. 6038; Horní Břečkov, pond (26), ♀, v., Inv. No. 5344; Podmolí, trickle (36), ♀, v., Inv. No. 5332; Podmolí, Žlebský potok brook (37), ♀, v., Inv. No. 7622.

**Comment.** A common European species distributed in central Europe, along the Atlantic coast, in the British Isles and reaching the Apennines and the Balkans in the south. Known from the vicinity of rills, brooks and ponds.

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

**Published records.** Čížovský rybník pond, Horní Břečkov (JEŽEK et al. 2005).

**Material examined.** Vranov nad Dyjí, Braitava (4), ♂, vi., Inv. No. 6801; Čížov, pond (13), ♂, v., Inv. No. 6823;

Čížov, rills (15), ♂, v., Inv. No. 6047; Hnanice, Gruberův pramen spring (19), ♂, vi., Inv. No. 7616; Horní Břečkov, pond (26), ♂, v., Inv. No. 5350; Vranov nad Dyjí, Lesná (31), ♂, v., Inv. No. 6028; Podmolí, Žlebský potok brook (37), ♂, v., Inv. No. 6022; Popice, pond (38), ♂, v., Inv. No. 6010.

**Comment.** Probably a central European species, uncommon with so far only few localities known in the Czech Republic (Bohemia and Moravia) and Poland; collected in shaded spring areas or near rills, brooks and ponds, sometimes together with *J. soleata* (Walker, 1856) and *J. valachica* (Vaillant, 1963).

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

**Published records.** Horní Břečkov (JEŽEK et al. 2005).

**Material examined.** Vranov nad Dyjí, Braitava (4), ♂, vi., Inv. No. 6799; Vranov nad Dyjí, Rybníky U Jekala (5), ♂, vi., Inv. No. 6809; Čížov, Klaperův potok brook (11), ♂, v., Inv. No. 5987; Čížov, pond (13), ♂, v., Inv. No. 6824; Čížov, rills (15), ♂, v., Inv. No. 6040; Hnanice, Gruberův pramen spring (19), ♂, vi., Inv. No. 7615; Hnanice, canal of irrigation (25), ♂, vi., Inv. No. 7576; Horní Břečkov, pond (26), ♂, v., Inv. No. 5348; Znojmo, Granický potok brook (27), ♂, v., Inv. No. 5341; Vranov nad Dyjí, Lesná (31), ♂, v., Inv. No. 6026; Podmolí, Žlebský potok brook (37), ♂, v., Inv. No. 6018; Popice, pond (38), ♂, v., Inv. No. 6009; Znojmo – Na vyhlídce (62), ♂, v., Inv. No. 5997; Znojmo, Trouznické údolí valley (63), ♂, v., Inv. No. 6830.

**Comment.** A common species distributed almost throughout Europe, including the British Isles, also known from Northern Iran. It was collected from lowlands to mountains in shaded habitats with decaying organic matter.

### *Jungiella (Jungiella) valachica* (Vaillant, 1963)

**Published records.** Čížovský rybník pond, Horní Břečkov (JEŽEK et al. 2005).

**Material examined.** Olbramkostel, Černá Hlína (10), ♂, vi., Inv. No. 8328; Čížov, rills (15), ♂, v., Inv. No. 6045; Hnanice, pond (24), ♂, vi., Inv. No. 7617; Popice, pond (38), ♂, v., Inv. No. 6007.

**Comment.** Quite rare, known from Poland, Czech Republic, Austria, Switzerland, Great Britain and countries in the Balkan Peninsula. It inhabits similar habitats as *J. soleata*.

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

**Material examined.** Mašovice, Andělský mlýn (1), ♂, vi., Inv. No. 7600.

**Comment.** A European species, so far known only from the Great Britain, France, Czech Republic and Hungary. It occurs in habitats with decaying organic matter (ponds, shaded brooks and wet meadows).

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

**Published records.** Citonice (Ježek 2003), Čížovský rybník pond (JEŽEK et al. 2005).

**Material examined.** Citonice, Mramotický potok brook (7), ♂, vi., Inv. No. 8345.

**Comment.** A very rare central European species, known only from the Czech Republic, Germany, Hungary and Serbia. It occurs in habitats with sandy sediments, especially brook flood-plains and ponds. Critically endangered in the Czech Republic.

*Jungiella (Psychocha) procera* Krek, 1971

**Material examined.** Chvalovice, Daniž brook (6), ♂, vi., Inv. No. 8360; Čížov, rills (15), ♂, v., Inv. No. 6050; Hnanice, canal of irrigation (25), ♂, vi., Inv. No. 7580; Znojmo, Granický potok brook (27), ♂, v., Inv. No. 5339; Znojmo, river near Kraví hora hill (28), ♂, v., Inv. No. 5363; Podmolí, Žlebský potok brook (37), ♂, v., Inv. No. 6017; Popice, pond (38), ♂, v., Inv. No. 6011; Znojmo – Bohumilice, meanders (61), ♂, vi., Inv. No. 8312; Znojmo – Na vyhlídce (62), ♂, v., Inv. No. 5998.

**Comment.** A quite rare, hardly known species, numerous only locally; it has been collected so far only in Bosnia and Herzegovina, Serbia, and the Czech Republic in flood-plains of small brooks, swampy meadows, forest spring areas and treeless tufa-forming fens and ponds.

*Logima albipennis* (Zetterstedt, 1850)

**Published records.** Hnanice, Horní Břečkov, Ledové sluje caves, Zadní Hamry, Pod Šobesem, Faltýskův Mlýn, Devět Mlýnů (Ježek et al. 2005).

**Material examined.** Mašovice, Andělský Mlýn (1), ♀, vi., Inv. No. 7602; Hnanice, Šobes, Baštův Mlýn (2), ♀, vi., Inv. No. 7609; Citonice (9), ♀, v., Inv. No. 5336; Čížov, Klaperův potok brook (11), ♀, v., Inv. No. 5988; Šafov (41), ♀, ix., Inv. No. 5992; Štítary, Dolní Štítarský rybník pond (48), ♀, ix., Inv. No. 8309.

**Comment.** A cosmopolitan species, eurybiontic, very common from lowlands to mountains. The larvae are saprophagous. The adults are occasionally numerous in Malaise and yellow pan traps and are also attracted by blue light traps.

*Logima satchelli* (Quate, 1955)

**Published records.** Citonice (JEŽEK 1996), Hnanice, Havraníky, Horní Břečkov, Čížovský rybník pond, Ledové sluje caves, Zadní Hamry, Braitava letohrádek country seat, Nad Šobesem, Široká pole fields, Vraní skála rock, Hardegg vyhlídka view point, Liščí skála rock, Fládnická chata hut (JEŽEK et al. 2005).

**Material examined.** Citonice (9), ♀, v., Inv. No. 5369; Štítary, village vicinity (51), ♀, viii., Inv. No. 6788.

**Comment.** A common, eurybiontic species, collected at various altitudes throughout the Holarctic Region.

*Logima zetterstedti* Ježek, 1983

**Published records.** Hnanice, Havraníky, Horní Břečkov, Ledové sluje caves, Zadní Hamry, Pod Šobesem, Nad Šobesem, Široká pole fields, Hardegg vyhlídka view point, Liščí skála rock, Faltýskův Mlýn, Fládnická chata hut, Devět Mlýnů (JEŽEK et al. 2005).

**Material examined.** Šafov (41), ♀, ix., Inv. No. 5990.

**Comment.** A European and western Siberian species, generally very common and known from a wide range of altitudes. Its larvae are saprobiontic. Adults sometimes become enclosed in sheaths of the plant *Arum maculatum* which they pollinate.

*Panimerus denticulatus* Krek, 1971

**Published records.** Čížovský rybník pond, Faltýskův Mlýn (JEŽEK et al. 2005).

**Material examined.** Mašovice, Andělský Mlýn (1), ♂, vi., Inv. No. 7595; Chvalovice, Daniž brook (6), ♂, vi., Inv. No. 8363; Olbramkostel, Černá Hlína (10), ♂, vi., Inv. No. 8324; Nesachleby (17), ♂, vi., Inv. No. 7566; Dyjákovičky, Hutský potok brook (18), ♂, vi., Inv. No. 7620; Hnanice, Gruberův pramen spring (19), ♂, vi., Inv. No. 7612; Hnanice, canal of irrigation (25), ♂, vi., Inv. No. 7578; Kravsko, Plenkovičky potok brook (29), ♂, vi., Inv. No. 8320;

Olbramkostel, Vranovská Ves, Jankovec pond (57), ♂, vi., Inv. No. 7572; Vrbovec, Vrbovecký potok brook (60), 2 ♂♂, vi., Inv. No. 7587 and 8334; Znojmo – Bohumilice, meanders (61), ♂, vi., Inv. No. 8313.

**Comment.** A locally common species, known from several European countries: Austria, Bosnia and Herzegovina, Czech Republic, Great Britain, Greece, Ireland and Macedonia. It occurs in shaded spring areas, alongside brooks, around ponds, and in wet meadows and pastures from lowlands to mountains.

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

**Published records.** Horní Břečkov, Faltýskův Mlýn, Devět Mlýnů (JEŽEK et al. 2005).

**Material examined.** Citonice, Mramotický potok brook (7), ♂, vi., Inv. No. 8344; Olbramkostel, Černá Hlina (10), ♂, vi., Inv. No. 8327; Čížov, marshes (12), ♂, ix., Inv. No. 5354; Havraníky, Havranické vřesoviště, pond (22), ♂, v., Inv. No. 6064; Horní Břečkov, pond (26), ♂, v., Inv. No. 5346; Šatov (42), ♂, vi., Inv. No. 7591; Vrbovec, Vrbovecký potok brook (60), 2 ♂♂, vi., Inv. No. 7583 and 8338.

**Comment.** A common European species recorded from countries along the North Sea coast (including the British Isles), Scandinavia, central Europe, the Balkans and Northern Iran. It lives in habitats with decaying organic matter, being (together with some water plants, e.g. *Typha*) one of the first colonizers of early succession stages, e.g. in surface mining areas and spoil dumps.

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

**Material examined.** Citonice, Mramotický potok brook (7), ♂, vi., Inv. No. 8347; Čížov, marshes (12), ♂, ix., Inv. No. 5361.

**Comment.** Eurasian species, known from western and central Europe, Finland, Lithuania, the Balkans and Turkey. An uncommon species which inhabits hygropetric zones with moss cushions, spring areas and brooks.

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

**Material examined.** Čížov, rills (15), ♂, v., Inv. No. 6042.

**Comment.** European species, uncommon, distributed in Great Britain, Denmark, Belgium, the Netherlands and the Czech Republic.

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

**Published records.** Citonice (JEŽEK 2003), Horní Břečkov, Devět Mlýnů (JEŽEK et al. 2005).

**Material examined.** Citonice, Na hájkách (8), 2 ♂♂, v., Inv. No. 6061 and 6063.

**Comment.** A rare European and West-Siberian species known from Great Britain, Ireland, Austria, Czech Republic and Russia (Siberia). Critically endangered in the Czech Republic.

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

**Published records.** Horní Břečkov, Čížovský rybník pond, Faltýskův Mlýn, Devět Mlýnů (JEŽEK et al. 2005)

**Material examined.** Vranov nad Dyjí, Braitava (4), ♂, vi., Inv. No. 6800; Vranov nad Dyjí, Rybníky U Jekala (5), ♂, vi., Inv. No. 6810; Citonice, Na hájkách (8), ♂, v., Inv. No. 6060; Citonice (9), ♂, v., Inv. No. 5370; Čížov, pond

(13), ♂, v., Inv. No. 6822; Čížov, rills (15), ♂, v., Inv. No. 6041; Hnanice, Devět Mlýnů (16), ♂, vi., Inv. No. 8350; Nesachleby (17), ♂, vi., Inv. No. 7569; Hnanice, Gruberův pramen spring (19), ♂, vi., Inv. No. 7614; Hnanice, canal of irrigation (25), ♂, vi., Inv. No. 7577; Horní Břečkov, pond (26), ♂, v., Inv. No. 5349; Vranov nad Dyjí, Lesná (31), ♂, v., Inv. No. 6024; Plenkovice, Plenkovičky rybník pond (33), ♂, vi., Inv. No. 8333; Podmolí, trickle (36), ♂, v., Inv. No. 5329; Hnanice, Šobes vineyard, meander (47), ♂, v., Inv. No. 5379; Olbramkostel, Vranovská Ves, Jankovec pond (57), ♂, vi., Inv. No. 7574; Znojmo – Bohumilice, meanders (61), ♂, vi., Inv. No. 8316; Znojmo, Trouznické údolí valley (63), ♂, v., Inv. No. 6829.

**Comment.** Widely distributed in Europe and western Siberia. Generally a very common species, which inhabits both unshaded and shaded banks of streams (mainly with moss cushions), ponds, and forest seepages.

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

**Published records.** Citonice, Čížov, Horní Břečkov, Fládnická chata hut, Lesná (JEŽEK 2003), Hnanice, Horní Břečkov, Čížovský rybník pond, Faltýskův Mlýn, Devět Mlýnů (JEŽEK et al. 2005).

**Material examined.** Citonice, Na hájkách (8), 2 ♂♂, v., Inv. No. 6057 and 6062; Čížov, rills (15), ♂, v., Inv. No. 6039; Hnanice, Devět Mlýnů (16), ♂, vi., Inv. No. 8349; Vranov nad Dyjí, Lesná (31), 2 ♂♂, v., Inv. No. 6023 and 6025.

**Comment.** A rare species, recorded only from Great Britain, Ireland, Austria, Czech Republic, Slovakia, Bosnia and Herzegovina, and Serbia. It occurs in habitats with decaying organic matter (ponds, brooks, meanders of rivers, rills and swamps). Critically endangered in the Czech Republic.

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

**Published records.** Horní Břečkov (JEŽEK et al. 2005).

**Material examined.** Horní Břečkov, pond (26), ♂, v., Inv. No. 5345.

**Comment.** A European and western Siberian species known from Germany, Great Britain, Czech Republic, Poland, Austria, Bosnia and Herzegovina, Abkhazia (Caucasus) and Russia (Novosibirsk region). It has been collected in swampy meadows and pastures, spring areas, alongside brooks, near ponds, and in bottomlands of meandering flows from lowland to mountains.

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

**Material examined.** Hnanice, Šobes vineyard and Nad papírnou hills (45), ♀, viii., Inv. No. 8356; Štítary, village vicinity (51), ♂, viii., Inv. No. 6789; Vrbovec, Vrbovecký potok brook (60), ♂, vi., Inv. No. 7586.

**Comment.** Known from most of Europe, very common locally mainly on extreme localities (salt works, thermal springs, calcareous water, mineral-rich springs). Recorded as well in Algeria, Morocco, Israel, Afghanistan, Iran, and USA.

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

**Published records.** Zadní Hamry, Devět Mlýnů (JEŽEK et al. 2005).

**Material examined.** Mašovice, Andělský Mlýn (1), ♂, vi., Inv. No. 7601; Citonice, Mramotický potok brook (7), ♂, vi., Inv. No. 8343; Nesachleby (17), ♂, vi., Inv. No. 7565; Znojmo, Granický potok brook (27), ♂, v., Inv. No.



5338; Znojmo – Bohumilice, meanders (61), ♂, vi., Inv. No. 8311; Znojmo – Na vyhlídce (62), 2 ♂♂, v., Inv. No. 5996 and 6002.

**Comment.** Widespread in Europe (known from altogether 30 countries) and recorded also in Transcaucasia, Tunisia and Morocco. A moss-dwelling species, common in both shaded and unshaded habitats in different altitudes.

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

**Published records.** Hnanice, Horní Břečkov, Široká pole fields, Vraní skála rock, Hardegg vyhlídka view point, Faltýskův Mlýn, Devět Mlýnů (JEŽEK et al. 2005).

**Material examined.** Mašovice, Andělský Mlýn (1), ♂, vi., Inv. No. 7599; Hnanice, Šobes, Baštův Mlýn (2), 2 ♂♂, v. and vi., Inv. No. 6056 and 7610; Citonice, Mramotický potok brook (7), ♂, vi., Inv. No. 8346; Hnanice, Devět Mlýnů (16), ♂, vi., Inv. No. 8348; Nesachleby (17), ♂, vi., Inv. No. 7564; Hardegg, river (20), ♂, ix., Inv. No. 6787; Hardegg, brook (21), ♂, v., Inv. No. 6781; Znojmo, river nr. Kraví hora hill (28), ♂, v., Inv. No. 5364; Kravsko, Plenkovičský potok brook (29), ♂, vi., Inv. No. 8321; Zadní Hamry, Ledové sluje (30), ♂, v., Inv. No. 6014; Mramotice, Pílský rybník pond (34), ♂, vi., Inv. No. 8339; Podmolí, Žlebský potok brook (37), ♂, v., Inv. No. 6020; Hnanice, Šobes vineyard and Nad papírnou hills (45), ♂, viii., Inv. No. 8358; Hnanice, Šobes vineyard, river (46), ♂, vi., Inv. No. 7589; Hnanice, Šobes vineyard, meander (47), 3 ♂♂, v. and vi., Inv. No. 5366, 5380 and 8354; Znojmo, Trouznické údolí valley (63), ♂, v., Inv. No. 6828.

**Comment.** A European and western Siberian species recorded from more than 18 countries, known also from the Caucasus (Abkhazia). A moss-dwelling species, generally common and numerous in both shaded and unshaded habitats, e.g. ponds, swampy meadows, bottomlands of brooks and water reservoirs.

### *Peripsychoda auriculata* (Haliday, 1839)

**Published records.** Horní Břečkov, Čížovský rybník pond, Braitava letohrádek country seat, Faltýskův Mlýn (JEŽEK et al. 2005).

**Material examined.** Mašovice, Andělský Mlýn (1), ♂, vi., Inv. No. 7598; Vranov nad Dyjí, Braitava (4), ♂, vi., Inv. No. 6802; Vranov nad Dyjí, Rybníky U Jekala (5), ♂, vi., Inv. No. 6808; Chvalovice, Daniž brook (6), ♂, vi., Inv. No. 8364; Olbramkostel, Černá Hlína (10), ♂, vi., Inv. No. 8323; Čížov, pond (13), ♂, v., Inv. No. 6827; Čížov, rills (15), ♂, v., Inv. No. 6049; Nesachleby (17), ♂, vi., Inv. No. 7563; Hnanice, Gruberův pramen spring (19), ♂, vi., Inv. No. 7611; Plenkovice, Plenkovičský rybník pond (33), ♂, vi., Inv. No. 8331; Podmolí, very small lake (35), ♂, v., Inv. No. 6036; Popice, pond (38), ♂, v., Inv. No. 6012; Olbramkostel, Vranovská Ves, Jankovec pond (57), ♂, vi., Inv. No. 7571; Znojmo – Bohumilice, meanders (61), ♂, vi., Inv. No. 8315.

**Comment.** A well-known and conspicuous European and Transcaucasian species; it occurs from lowlands to hilly regions, being very common in habitats with decaying organic matter, e.g. ponds, bottomlands of brooks, forest water reservoirs, wet pastures, and eutrophic spring areas.

### *Philosepedon (Philosepedon) dumosum* Omelková & Ježek, 2012

**Published records.** Hnanice (OMELKOVÁ & JEŽEK 2012b).

**Comment.** Known only from the Czech Republic so far. Described from the south-western Moravia, Dyje river valley, Jeseníky Mts. and Železné hory Mts. Biotopes: bottomlands and inundated meadows.

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

**Published records.** Šobes (JEŽEK 1996), Pod Šobesem, Terasy, Široká pole fields, Vraní skála rock, Hardegg vyhlídka view point, Faltýskův Mlýn (JEŽEK et al. 2005).

**Material examined.** Hnanice, Šobes vineyard, meander (47), ♂, v., Inv. No. 5377.

**Comment.** Generally a very common and widely distributed European species (present also in North Africa), which occurs from lowlands to mountains. It is associated with mollusc shells.

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

**Material examined.** Vranov nad Dyjí, Lesná (31), ♂, ix., Inv. No. 6812.

**Comment.** So far recorded from Bosnia and Herzegovina, Czech Republic, France, Germany, Great Britain, Greece, Hungary, Macedonia, Romania and Slovakia. It occurs in habitats with decaying organic matter which is needed for the development of larvae, particularly leaf packs and moss cushions in spring areas and streams. Considered endangered in the Czech Republic.

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

**Published records.** Ledové sluje caves, Zadní Hamry, Faltýskův Mlýn (JEŽEK et al. 2005).

**Material examined.** Podmolí, Žlebský potok brook (37), ♂, v., Inv. No. 6019; Znojmo – Na vyhlídce (62), ♂, v., Inv. No. 5999.

**Comment.** The nominate subspecies was ascertained in 11 European countries and the Caucasus; the other subspecies, *Pneumia gracilis kandavanica* (Ježek, 1990) was described from Iran. It lives in spring areas on forest slopes, brooks, and marshes.

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

**Published records.** Vranov nad Dyjí (Vaillant 1966), Hnanice, Horní Břečkov, Čížovský rybník pond, Ledové sluje caves, Pod Šobesem, Široká pole fields, Faltýskův Mlýn (JEŽEK et al. 2005).

**Material examined.** Mašovice, Andělský Mlýn (1), ♂, vi., Inv. No. 7597; Bezkov, pond (3), ♂, ix., Inv. No. 6795; Vranov nad Dyjí, Braitava (4), 2 ♂♂, vi. and ix., Inv. No. 5381 and 6797; Vranov nad Dyjí, Rybníky U Jekala (5), 2 ♂♂, vi. and ix., Inv. No. 5358 and 6819; Chvalovice, Daníž brook (6), ♂, vi., Inv. No. 8365; Citonice, Mramotický potok brook (7), ♂, vi., Inv. No. 8342; Olbramkostel, Černá Hlína (10), ♂, vi., Inv. No. 8325; Čížov, Klaperův potok brook (11), ♂, v., Inv. No. 5989; Čížov, marshes (12), ♂, ix., Inv. No. 5357; Čížov, pond (13), ♂, v., Inv. No. 6825; Čížov, drainage ditch (14), ♂, ix., Inv. No. 6053; Čížov, rills (15), ♂, v., Inv. No. 6046; Hnanice, Devět Mlýnů (16), ♂, vi., Inv. No. 8352; Nesachleby (17), ♂, vi., Inv. No. 7567; Hnanice, Gruberův pramen spring (19), ♂, vi., Inv. No. 7613; Hnanice, pond (24), ♂, vi., Inv. No. 7618; Horní Břečkov, pond (26), ♂, v., Inv. No. 5351; Kravsko, Plenkovický potok brook (29), ♂, vi., Inv. No. 8322; Vranov nad Dyjí, Lesná (31), 2 ♂♂, v. and ix., Inv. No. 6029 and 6815; Plenkovice, Plenkovický rybník pond (33), ♂, vi., Inv. No. 8330; Mramotice, Pílský rybník pond (34), ♂, vi., Inv. No. 8341; Podmolí, trickle (36), ♂, v., Inv. No. 5333; Podmolí, Žlebský potok brook (37), ♂, v., Inv. No. 6016; Popice, pond (38), ♂, v., Inv. No. 6006; Šafov, Janský rybník pond (40), ♂, ix., Inv. No. 6785; Olbramkostel, Šimberk – hájovna (43), ♂, ix., Inv. No. 6067; Štítary, Dolní Štítarský rybník pond (48), ♂, ix., Inv. No. 8310; Štítary, brook (49), ♂, ix., Inv. No. 6030; Štítary, Horní Štítarský rybník pond (50), ♂, ix., Inv. No. 6817; Vranov nad Dyjí, Šumná (53), ♂, ix., Inv. No. 6068; Olbramkostel, Vracovice, Polní rybník pond (54), ♂, ix., Inv. No. 6804; Olbramkostel, Vracovice, Vracovický rybník pond (55), ♂, ix., Inv. No. 6033; Olbramkostel, Vranovská Ves, Jankovec pond (57), ♂, vi., Inv. No. 7570; Horní Břečkov, Vranovské brány, pond (58), ♂, ix., Inv. No. 6004;

Vrbovec, Vrbovecký potok brook (60), 2 ♂♂, vi., Inv. No. 7582 and 8337; Znojmo – Bohumilice, meanders (61), ♂, vi., Inv. No. 8318.

**Comment.** A very common species, recorded throughout Europe and the Canary Islands. It is numerous especially in shaded habitats with decaying organic matter, e.g. ponds, brooks, spring areas, water reservoirs and swamps

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

**Published records.** Hnanice, Havraníky, Čížovský rybník pond, Zadní Hamry, Faltýskův Mlýn (JEŽEK et al. 2005).

**Material examined.** Vranov nad Dyjí, Braitava (4), ♂, ix., Inv. No. 5376; Vranov nad Dyjí, Rybníky U Jekala (5), ♂, ix., Inv. No. 5347; Čížov, marshes (12), ♂, ix., Inv. No. 5353; Horní Břečkov, pond (26), ♂, ix., Inv. No. 6794; Vranov nad Dyjí, Lesná (31), ♂, ix., Inv. No. 6813; Šafov, Cihelný rybník pond (39), ♂, ix., Inv. No. 6782; Olbramkostel, Šimberk – hájovna (43), ♂, ix., Inv. No. 6069; Štítary, Horní Štítarský rybník pond (50), ♂, ix., Inv. No. 6818; Štítary, runnel (52), ♂, ix., Inv. No. 6071; Vranov nad Dyjí, Šumná (53), ♂, ix., Inv. No. 6070; Olbramkostel, Vracovice, Vracovický rybník pond (55), ♂, ix., Inv. No. 6035.

**Comment.** Distributed almost throughout Europe including Spain, the British Isles and Scandinavia, collected also in Algeria, Morocco and Tajikistan, but relatively rare. The larvae occur in mosses in running water habitats, e.g. spring areas and brooks from lowlands to mountains.

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

**Published records.** Hnanice, Horní Břečkov, Ledové sluje caves, Široká pole fields, Vraní skála rock, Faltýskův Mlýn, Liščí skála rock, Devět Mlýnů (JEŽEK et al. 2005).

**Material examined.** Mašovice, Andělský Mlýn (1), ♂, vi., Inv. No. 7596; Hnanice, Šobes, Baštův Mlýn (2), ♂, v., Inv. No. 6055; Vranov nad Dyjí, Braitava (4), 2 ♂♂, vi. and ix., Inv. No. 5374 and 6803; Vranov nad Dyjí, Rybníky U Jekala (5), 2 ♂♂, vi. and ix., Inv. No. 5359 and 6820; Chvalovice, Daniž brook (6), ♂, vi., Inv. No. 8361; Olbramkostel, Černá Hlína (10), ♂, vi., Inv. No. 8326; Čížov, marshes (12), ♂, ix., Inv. No. 5356; Čížov, drainage ditch (14), ♂, ix., Inv. No. 6051; Čížov, rills (15), ♂, v., Inv. No. 6043; Nesachleby (17), ♂, vi., Inv. No. 7568; Dyjákovický, Huťský potok brook (18), ♂, vi., Inv. No. 7621; Horní Břečkov, pond (26), 2 ♂♂, v. and ix., Inv. No. 5343 and 6793; Kravsko, Plenkovický potok brook (29), ♂, vi., Inv. No. 8319; Vranov nad Dyjí, Lesná (31), ♂, ix., Inv. No. 6814; Plenkovice, Plenkovický rybník pond (33), ♂, vi., Inv. No. 8332; Mramotice, Pilský rybník pond (34), ♂, vi., Inv. No. 8340; Podmolí, very small lake (35), ♂, v., Inv. No. 6037; Šafov, Cihelný rybník pond (39), ♂, ix., Inv. No. 6783; Šafov, Janský rybník pond (40), ♂, ix., Inv. No. 6786; Šafov (41), ♂, ix., Inv. No. 5994; Olbramkostel, Šimberk – hájovna (43), ♂, ix., Inv. No. 6072; Hnanice, Šobes vineyard, meander (47), ♂, v., Inv. No. 5378; Štítary, brook (49), ♂, ix., Inv. No. 6031; Štítary, Horní Štítarský rybník pond (50), ♂, ix., Inv. No. 6816; Štítary, runnel (52), ♂, ix., Inv. No. 6075; Vranov nad Dyjí, Šumná (53), ♂, ix., Inv. No. 6073; Olbramkostel, Vracovice, Polní rybník pond (54), ♂, ix., Inv. No. 6805; Olbramkostel, Vranovská Ves, Jankovec pond (57), ♂, vi., Inv. No. 7575; Horní Břečkov, Vranovské brány, pond (58), ♂, ix., Inv. No. 6003; Horní Břečkov, Vranovské brány, swamps (59), ♂, ix., Inv. No. 6074; Vrbovec, Vrbovecký potok brook (60), 2 ♂♂, vi., Inv. No. 7584 and 8335; Znojmo – Bohumilice, meanders (61), ♂, vi., Inv. No. 8314; Znojmo – Na vyhlídce (62), ♂, v., Inv. No. 6001; Znojmo, Trouznické údolí valley (63), ♂, v., Inv. No. 6811.

**Comment.** A very common European species widely distributed from the Iberian Peninsula, British Isles to Poland, and from Scandinavia to the Balkans. In the Czech Republic documented largely from the Hercynicum. The larvae develop in both shaded and unshaded habitats with decaying organic matter (ponds, brooks, spring areas, swamps and water reservoirs).

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

**Published records.** Čížovský rybník pond, Devět Mlýnů (JEŽEK et al. 2005).

**Material examined.** Mašovice, brook (32), 3 ♂♂, vi., Inv. No. 7603, 7605 and 7607.

**Comment.** Known from Europe (Belgium, Germany, Great Britain, Denmark, Czech Republic, Slovakia, Austria, Bosnia and Herzegovina, and Greece) but it is generally quite rare. The adults were collected in spring areas on slopes, in wet pastures and in the neighbourhood of forest brooks; sometimes together with *P. silesiensis* Ježek, 1983. Considered endangered in the Czech Republic.

*Promormia silesiensis* Ježek, 1983 (CR)

**Published records.** Čížovský rybník pond, Zadní Hamry (JEŽEK et al. 2005).

**Material examined.** Mašovice, Andělský Mlýn (1), ♂, vi., Inv. No. 7594; Mašovice, brook (32), 2 ♂♂, vi., Inv. No. 7604 and 7606; Hnanice, Šobes vineyard, river (46), ♂, vi., Inv. No. 7590.

**Comment.** So far collected only in the Czech Republic, Greece, Slovenia and Slovakia. A critically endangered species in the Czech Republic; sometimes collected together with *P. eatoni* in the same habitats.

*Psychoda phalaenoides* (Linné, 1758)

**Published records.** Havraníky, Hnanice, Horní Břečkov, Čížovský rybník pond, Ledové sluje caves, Pod Šobesem, Široká pole fields, Vraní skála rock, Faltýskův Mlýn, Liščí skála rock, Braitava letohrádek country seat (JEŽEK et al. 2005).

**Material examined.** Vranov nad Dyjí, Braitava (4), ♀, ix., Inv. No. 5372.

**Comment.** A Holarctic polyvoltine species (with several generations per year), very common: known from lowlands to mountains. Adults sometimes become enclosed in sheaths of *Arum maculatum* together with *Psycha grisescens* (Tonnoir, 1922) and some other pollinator species. The larvae are saprobiontic.

*Psychoda uniformata* Haseman, 1907

**Material examined.** Citonice (9), ♀, v., Inv. No. 5368; Štítary, village vicinity (51), ♀, viii., Inv. No. 6790.

**Comment.** A Holarctic species, recorded from Finland, Austria, Czech Republic, Italy, Slovenia, Greece, Turkey, Iran, Israel, Mongolia, and the USA. The larvae are saprobiontic, the adults inhabit animal sheds, stables and dog kennels.

*Psychodocha cinerea* (Banks, 1894)

**Published records.** Hnanice, Horní Břečkov, Pod Šobesem, Nad Šobesem, Široká pole fields, Vraní skála rock, Faltýskův Mlýn, Liščí skála rock, Fládnická chata hut, Devět Mlýnů (JEŽEK et al. 2005).

**Material examined.** Znojmo, river nr. Kraví hora hill (28), ♀, v., Inv. No. 5362; Mašovice, brook (32), ♂, vi., Inv. No. 7608; Šafov (41), ♀, ix., Inv. No. 5991.

**Comment.** A very common cosmopolitan species ranging from lowlands to mountains. The larvae are saprobiontic, occasionally associated with fungi, the adults are often found in unclean bathrooms.

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

**Published records.** Havraníky, Hnanice, Horní Břečkov, Liščí skála rock, Čížovský rybník pond, Ledové sluje caves, Zadní Hamry, Pod Šobesem, Nad Šobesem, Terasy, Široká pole fields, Vraní skála rock, Braitava letohrádek country seat, Hardegg vyhlídka view point, Faltýskův Mlýn, Fládnická chata hut, Devět Mlýnů (JEŽEK et al. 2005).

**Material examined.** Vranov nad Dyjí, Šumná (53), ♀, ix., Inv. No. 6065.

**Comment.** A European species known from many countries; it occurs commonly from lowlands to mountains. The larvae are saprobiontic and often develop in nests of water birds.

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

**Published records.** Havraníky, Hnanice, Horní Břečkov, Čížovský rybník, Ledové sluje caves, Zadní Hamry, Braitava letohrádek country seat, Nad Šobesem, Terasy, Vraní skála rock, Hardegg view point, Liščí skála rock, Fládnická chata hut (JEŽEK et al. 2005).

**Material examined.** Hnanice, Šobes vineyard and Nad papírnou hills (45), ♀, viii., Inv. No. 8355.

**Comment.** A generally common Holarctic species, recorded from many countries. It occurs from lowlands to mountains. The larvae are saprobiontic and may be found on guano in caves as well.

***Psycmera integella* (Jung, 1956) (CR)**

**Published records.** Horní Břečkov, Čížovský rybník pond, Faltýskův Mlýn (JEŽEK et al. 2005).

**Material examined.** Vranov nad Dyjí, Braitava (4), ♂, vi., Inv. No. 6798; Olbramkostel, Černá Hlína (10), ♂, vi., Inv. No. 8329; Hnanice, Devět Mlýnů (16), ♂, vi., Inv. No. 8353; Hnanice, canal of irrigation (25), ♂, vi., Inv. No. 7579; Vranov nad Dyjí, Lesná (31), ♂, v., Inv. No. 6027; Podmolí, trickle (36), ♂, v., Inv. No. 5335.

**Comment.** A European and West-Siberian species known from Germany, Czech Republic, Poland, Bosnia and Herzegovina, and Russia (Siberia: Novosibirsk area) from lowlands to hilly regions. It inhabits banks of ponds and swampy alder-woods. Critically endangered in Czech Republic.

***Sycorax silacea* Haliday, 1839**

**Published records.** Horní Břečkov (JEŽEK et al. 2005).

**Material examined.** Horní Břečkov, pond (26), ♂, v., Inv. No. 5342.

**Comment.** Distributed in western (including the British Isles) and central Europe, Scandinavia, the Apennines and the Balkan Peninsula, locally common. It has been collected in spring areas, in mosses in running water habitats, sources, forest rills and in the neighbourhood of streams.

***Telmatoscopus carthusianus* (Vaillant, 1972)**

**Published records.** Znojmo – Na vyhlídce, between Čížov and Horní Břečkov (JEŽEK 2003), Braitava letohrádek country seat (JEŽEK et al. 2005).

**Material examined.** Čížov, rills (15), ♂, v., Inv. No. 6048; Znojmo – Na vyhlídce (62), ♂, v., Inv. No. 6000.

**Comment.** Known from Czech Republic, France, Germany, Poland, Slovakia and Slovenia. It occurs in forest spring areas, swampy meadows, streams, and brooks from lowlands to mountains.

*Telmatoscopus gressicus* (Vaillant, 1972)

**Published records.** Znojmo – Hradiště, Podmolí and Šobes (JEŽEK 2003), Horní Břečkov, Ledové sluje caves, Faltýskův Mlýn (JEŽEK et al. 2005).

**Material examined.** Čížov, pond (13), ♂, v., Inv. No. 6821; Znojmo, Granický potok brook (27), ♂, v., Inv. No. 5340; Podmolí, trickle (36), ♂, v., Inv. No. 5330; Podmolí, Žlebský potok brook (37), ♂, v., Inv. No. 6021; Hnanice, Šobes vineyard, meander (47), ♂, v., Inv. No. 5367.

**Comment.** A European species known from Austria, Czech Republic, France and Poland. It was found in the same habitats as *T. carthusianus* but is common only locally.

*Threticus incurvus* Krek, 1972 (EN)

**Material examined.** Citonice, Na hájkách (8), ♂, v., Inv. No. 6058.

**Comment.** A rare species, recorded from Austria, Bosnia and Herzegovina, Bulgaria, Czech Republic, Germany, Slovakia and Switzerland. It was found in various habitats (mountain slope spring areas, wet rocks, sandstones, forest margins, wallows, small brooks, banks of rivers, rills and swampy meadows). Considered endangered in the Czech Republic.

*Tinearia alternata* (Say, 1824)

**Published records.** Horní Břečkov, Pod Šobesem (JEŽEK et al. 2005).

**Material examined.** Citonice (9), ♂, v., Inv. No. 5371; Znojmo, Granický potok brook (27), ♀, v., Inv. No. 5337; Znojmo, river nr. Kraví hora hill (28), ♂, v., Inv. No. 5365; Podmolí, trickle (36), ♂, v., Inv. No. 5331; Šafov (41), ♀, ix., Inv. No. 5995; Šatov (42), ♀, vi., Inv. No. 7592; Hnanice, Šobes vineyard and Nad papírnou (45), ♀, viii., Inv. No. 8357.

**Comment.** A cosmopolitan species, generally very common. The larvae are saprobiontic, psammobiontic, coprobiontic, or associated with fungi; they develop in organic matter in spring areas, brooks, wet meadows, and excrements. In cases of their mass occurrence, the larvae can block the function of older biological filters in gravel sewage works.

*Tinearia lativentris* (Berdén, 1952)

**Material examined.** Šatov (42), ♀, vi., Inv. No. 7593.

**Comment.** A Holarctic species, common in similar habitats to *T. alternata* (although not in excrements). The larvae are saprobiontic.

*Tonnoiriella sieberti* Wagner, 1993 (EN)

**Published records.** Popice, Znojmo (JEŽEK 1999b, 2003), Horní Břečkov, Čížovský rybník pond (JEŽEK et al. 2005).

**Material examined.** Popice, pond (38), ♂, v., Inv. No. 6008.

**Comment.** Generally a rare species, known from Albania, Macedonia, Greece, Czech Republic, Slovakia and Syria; considered endangered in the Czech Republic. It may be found in swamps, rills, irrigation furrows in arable land, polluted water of fire reservoirs, spring areas on slopes in hills and mountains, and brooks with organic matter.

*Trichomyia hardeggensis* sp. nov.

**Material examined.** Hardegg, creek near view point (see above).

**Comment.** Known only from the Podyjí NP (Czech Republic) so far (single male), where the larvae are probably associated with decaying wood.

*Trichomyia urbica* Haliday, 1839 (CR)

**Published records.** Hnanice (JEŽEK 2003), Hardegg vyhlídka view point (JEŽEK et al. 2005).

**Material examined.** Hnanice, pond (24), ♂, vi., Inv. No. 7619.

**Comment.** Collected in many European countries (JEŽEK 2003). The larvae are xylophagous and occur in habitats with decaying cellulose matter. A critically endangered species in the Czech Republic.

*Trichopsychoda hirtella* (Tonnoir, 1919)

**Published records.** Terasy, Vraní skála rock, Faltýskův Mlýn (JEŽEK et al. 2005).

**Material examined.** Hnanice, Devět Mlýnů (16), ♂, vi., Inv. No. 8351; Hnanice, Šobes vineyard and Nad papírnou hills (45), ♂, viii., Inv. No. 8359; Hnanice, Šobes vineyard, river (46), ♀, vi., Inv. No. 7588.

**Comment.** Generally a common species, distributed from the British Isles to north and central Europe, the Apennines and the Balkans. The larvae are frequent in decaying plants and fruits. The adults are often numerous in Malaise and yellow pan traps.

*Ulomyia annulata annulata* (Tonnoir, 1919)

**Published records.** Devět Mlýnů (JEŽEK et al. 2005).

**Material examined.** Chvalovice, Daniž brook (6), ♂, vi., Inv. No. 8362; Olbramkostel, Vracovice, Vracovický rybník pond (55), ♂, ix., Inv. No. 6034.

**Comment.** So far known from Belgium, Germany, Czech Republic, Slovakia, Lithuania and Russia (western Siberia – Novosibirsk region; another subspecies, *U. a. chimganensis* Ježek, 1997 was described from Uzbekistan). It inhabits shaded but sometimes also unshaded habitats with decaying organic matter, e.g. ponds, water reservoirs, swamps, rills and wet meadows.

*Ulomyia fuliginosa* (Meigen, 1804)

**Published records.** Čížovský rybník pond (JEŽEK et al. 2005).

**Material examined.** Bezkov, pond (3), ♂, ix., Inv. No. 6796; Vranov nad Dyjí, Braitava (4), ♂, ix., Inv. No. 5373; Čížov, marshes (12), ♂, ix., Inv. No. 5355; Čížov, drainage ditch (14), ♂, ix., Inv. No. 6052; Havraníky, Havranícké vřesoviště, spring (23), ♂, v., Inv. No. 6054; Podmolí, Žlebský potok brook (37), ♂, v., Inv. No. 6015; Popice, pond (38), ♂, v., Inv. No. 6013; Olbramkostel, Vranovská Ves, Jankovec pond (57), ♂, vi., Inv. No. 7573; Znojmo – Bohumilice, meanders (61), ♂, vi., Inv. No. 8317.

**Comment.** Generally one of the most common European species, widely distributed, known from throughout nearly the whole of Europe, although records from eastern Europe have been scarce so far (e.g. Lithuania). It occurs from lowlands to mountains in mosses in running water

habitats with decaying organic matter, spring areas on slopes, banks of streams and brooks, outlets of ponds, cut-offs of rivers, marshes, swampy meadows and forest pools.

**Summary of the records.** From a biogeographical point of view, 50 species found in this survey include mostly European species (28 species, including 3 Central European species). The remaining species are Eurosiberian (8), Holarctic (6), Submediterranean (2) and Cosmopolitan (3) (Table 2 and remarks to individual species).

Five of the fifty species recorded were the most frequently collected species in the study area. *Pneumia nubila* and *P. trivialis* were found at 36 and 33 localities, respectively. They were followed by *Parajungiella longicornis* with 18 records, *Clytocyclus ocellaris* with 17 records, and *Pericoma fallax* with 16 records. In contrast, altogether 19 species were collected at a single locality: *Sycorax silacea*, *Trichomyia hardeggensis* sp. nov., *T. urbica*, *Promormia eatoni*, *Jungiella acuminata*, *J. laminata*, *Parajungiella consors*, *P. ellisi*, *Paramormia polyascoidea*, *Philosepedon dumosum*, *P. humerale*, *Threticus incurvus*, *Logima zetterstedti*, *Psychoda phalaenoides*, *Psychodocha gemina*, *Psychodula minuta*, *Tinearia lativentris*, *Pneumia crispi* and *Tonnoiriella sieberti*.

The highest number of psychodid species was recorded from the following localities: Čížov, rills (**15**) (13 species); Vranov nad Dyjí, Braitava (**4**) (11 species); Horní Břečkov, pond (**26**) (10 species); Mašovice, Andělský Mlýn (**1**) (9 species); Vranov nad Dyjí, Lesná (**31**) (9 species); Podmolí, Žlebský potok brook (**37**) (9 species); Čížov, marshes (**12**) (8 species); and Popice, pond (**38**) (8 species). Five localities hosted 7 species and 10 localities 6 species. A single psychodid species was collected at 8 localities.

**Species richness of moth flies of the Podyjí National Park.** Our knowledge on moth flies of the Podyjí National Park is fragmentary as this area has been overlooked by dipterologists in the past. The only available records are recent (JEŽEK 2003, JEŽEK et al. 2005, OMELKOVÁ & JEŽEK 2012b) and they document the occurrence of 65 species in the area. A total of 50 species (including 2 subspecies) of 25 genera collected at 63 localities were recorded in the present study. Comparing with the earlier data (JEŽEK et al. 2005), altogether 11 species, including *Trichomyia hardeggensis* sp. nov., were previously not found and are formally new for the fauna of the Podyjí NP and its environs (see Table 2 for the list of these species). In contrast, 25 species were not found at present study (Table 2). Together with earlier data (JEŽEK et al. 2005), 75 species are known from the Podyjí NP and its vicinity.

The description of a new species *Trichomyia hardeggensis* sp. nov., together with additional new records of *Psychomormia vaillantii* (Wagner, 1977), *Apsycha pusilla* (Tonnoir, 1922) and *Clogmia albipunctata* (Williston, 1893) from Moravia (JEŽEK et al. 2012, JEŽEK & OMELKOVÁ 2012) and the descriptions of *Philosepedon* (*Philosepedon*) *dumosum* Omelková & Ježek, 2012, *P. (P.) perdecorum* Omelková & Ježek, 2012 and *Pneumia kabelaki* Omelková & Ježek, 2012 from both Bohemia and Moravia (OMELKOVÁ & JEŽEK 2012a,b), increased the number of moth flies known from the Czech Republic to 173 (141 species in Bohemia and 152 species in Moravia) (cf. JEŽEK 2009). Seventy-five species found in the Podyjí NP (75 species) represent 43.4 % of the psychodid fauna of the Czech Republic and about half (49.3 %) of all species known from Moravia. A comparable number of species was recorded in the mountains at the northern frontier of the Czech Republic: Jeseníky Mts. – 78 species



Table 2. An updated systematic list of 75 species (incl. 2 subspecies) of non-biting moth flies (Diptera: Psychodidae) known from the Podyjí National Park and its environs. Abbreviations: CEU – Central European, COS – Cosmopolitan, EUR – European, EUS – Eurosiberian, HOL – Holarctic, PAL – Palaearctic, SBM – Submediterranean; CR – critically endangered, EN – endangered, VU – vulnerable, NS – nationally scarce.

Species	distribution	conservation	Ježek et al. (2005)	this study	total occurrence
1. <i>Sycorax silacea</i> Haliday, 1839	EUR	–	+	+	v
2. <i>Trichomyia hardeggensis</i> sp. nov.	CEU	NS	–	+	v–vi
3. <i>Trichomyia parvula</i> Szabó, 1960	EUR	NS	+	–	viii–ix
4. <i>Trichomyia urbica</i> Haliday, 1839	EUR	CR	+	+	v–vi
5. <i>Atrichobrunettia (Mirousiella) graeca</i> Ježek & Goutner, 1993	EUR	VU	–	–	vii–viii
6. <i>Promormia eatoni</i> (Tonnoir, 1940)	EUR	EN	+	+	v–vii
7. <i>Promormia silesiensis</i> Ježek, 1983	SBM	CR	+	+	v–vii
8. <i>Jungiella (Jungiella) hygrophila</i> Ježek, 1987	CEU	–	+	+	v–vii
9. <i>Jungiella (Jungiella) soleata</i> (Walker, 1856)	EUR	–	+	+	v–vi
10. <i>Jungiella (Jungiella) valachica</i> (Vaillant, 1963)	EUR	–	+	+	v–vii
11. <i>Jungiella (Psychocha) acuminata</i> (Szabó, 1960)	EUR	–	–	+	vi
12. <i>Jungiella (Psychocha) hassiaca</i> Wagner, 1993	EUR	NS	+	–	v–vi
13. <i>Jungiella (Psychocha) laminata</i> (Szabó, 1960)	CEU	CR	+	+	vi–vii
14. <i>Jungiella (Psychocha) procera</i> Krek, 1971	EUR	–	–	+	v–vi
15. <i>Krivoshheinoscopus bartai</i> Ježek, 2004	CEU	NS	+	–	v–vi
16. <i>Lepiseodina rothschildi</i> (Eaton, 1912)	EUR	NS	+	–	v–ix
17. <i>Lepiseodina tristis</i> (Meigen, 1830)	EUR	CR	+	–	v–vii
18. <i>Panimerus denticulatus</i> Krek, 1971	EUR	–	+	+	vi–viii
19. <i>Panimerus notabilis</i> (Eaton, 1893)	EUR	–	+	+	v–ix
20. <i>Panimerus unae</i> Krek, 1977	EUR	NS	+	–	vi
21. <i>Parajungiella consors</i> (Eaton, 1893)	EUR	–	–	+	v
22. <i>Parajungiella ellisi</i> (Withers, 1987)	EUS	CR	+	+	v–vi
23. <i>Parajungiella longicornis</i> (Tonnoir, 1919)	EUS	–	+	+	v–viii
24. <i>Parajungiella prikryli</i> Ježek, 1999	CEU	VU	+	–	v–viii
25. <i>Parajungiella pseudolongicornis</i> (Wagner, 1975)	EUR	CR	+	+	v–ix
26. <i>Parajungiella serbica</i> (Krek, 1985)	SBM	CR	+	–	v–ix
27. <i>Paramormia (Duckhousiella) ustulata</i> (Walker, 1856)	HOL	–	–	+	vi–viii
28. <i>Paramormia (Paramormia) polyascoidea</i> (Krek, 1971)	EUS	–	+	+	v–vi
29. <i>Peripsychoda auriculata</i> (Haliday, 1839)	EUR	–	+	+	v–viii
30. <i>Psycmera integella</i> (Jung, 1956)	EUS	CR	+	+	v–viii
31. <i>Sciria advena</i> (Eaton, 1893)	EUR	CR	+	–	iii–vi
32. <i>Telmatoscopus carthusianus</i> (Vaillant, 1972)	EUR	–	+	+	v–vi
33. <i>Telmatoscopus gressicus</i> (Vaillant, 1972)	EUR	–	+	+	iii–vi
34. <i>Feuerborniella obscura</i> (Tonnoir, 1919)	EUR	–	+	+	v–vii
35. <i>Philosepedon (Philosepedon) austriacum</i> Vaillant, 1974	EUS	–	+	–	iii–x
36. <i>Philosepedon (Philosepedon) dumosum</i> Omelková & Ježek, 2012	CEU	NS	–	+	iii–iv

(continued on the next page)

(Table 2: continued from the previous page)

Species	distribution	conservation	Ježek et al. (2005)	this study	total occurrence
36. <i>Philosepedon (Philosepedon) dumosum</i> Omelková & Ježek, 2012	CEU	NS	–	+	iii–iv
37. <i>Philosepedon (Philosepedon) hradkai</i> Ježek, 1999	CEU	VU	+	–	viii–ix
38. <i>Philosepedon (Philosepedon) humerale</i> (Meigen, 1818)	EUR	–	+	+	iv–x
39. <i>Philosepedon (Philosepedon) nickerli</i> Ježek, 1997	CEU	VU	+	–	ix–x
40. <i>Threticus incurvus</i> Krek, 1972	EUR	EN	–	+	v
41. <i>Trichopsychoda hirtella</i> (Tonnoir, 1919)	EUR	–	+	+	v–viii
42. <i>Chodopsycha lobata</i> (Tonnoir, 1940)	EUR	–	+	–	v–xi
43. <i>Logima albipennis</i> (Zetterstedt, 1850)	COS	–	+	+	iii–xi
44. <i>Logima erminea</i> (Eaton, 1893)	PAL	–	+	–	iii–xi
45. <i>Logima satchelli</i> (Quate, 1955)	HOL	–	+	+	iii–xi
46. <i>Logima sigma</i> (Kincaid, 1899)	COS	NS	+	–	iii–iv
47. <i>Logima zetterstedti</i> Ježek, 1983	EUS	–	+	+	iii–xi
48. <i>Psycha grisescens</i> (Tonnoir, 1922)	EUR	–	+	–	iii–xi
49. <i>Psychoda phalaenoides</i> (Linnaeus, 1758)	HOL	–	+	+	iii–xi
50. <i>Psychoda uniformata</i> Haseman, 1907	HOL	–	–	+	v–viii
51. <i>Psychodocha cinerea</i> (Banks, 1894)	COS	–	+	+	iii–xi–ii
52. <i>Psychodocha gemina</i> (Eaton, 1904)	EUR	–	+	+	iii–xi
53. <i>Psychodula minuta</i> (Banks, 1894)	HOL	–	+	+	iii–xi
54. <i>Psychomora mycophila</i> (Vaillant, 1988)	EUR	–	+	–	vi–xi
55. <i>Psychomora trinodulosa</i> (Tonnoir, 1922)	HOL	–	+	–	iii–xi
56. <i>Tinearia alternata</i> (Say, 1824)	COS	–	+	+	v–xi
57. <i>Tinearia lativentris</i> (Berdén, 1952)	HOL	–	–	+	vi
58. <i>Clytocerus (Boreoclytocerus) dalii</i> (Eaton, 1893)	EUR	–	+	–	iii–v
59. <i>Clytocerus (Boreoclytocerus) ocellaris</i> (Meigen, 1804)	EUR	–	+	+	iii–x
60. <i>Clytocerus (Boreoclytocerus) rivosus</i> (Tonnoir, 1919)	EUR	CR	+	–	vii–viii
61. <i>Parabazarella subneglecta</i> (Tonnoir, 1922)	EUA	–	–	+	vi–ix
62. <i>Pericoma (Pachypericoma) blandula</i> Eaton, 1893	EUR	–	+	+	v–vii
63. <i>Pericoma (Pachypericoma) fallax</i> Eaton, 1893	EUS	–	+	+	iv–x
64. <i>Pericoma (Pachypericoma) nielseni</i> Kvifte, 2010	EUR	NS	+	–	iv–viii
65. <i>Pneumia canescens</i> (Meigen, 1804)	EUS	–	+	–	iv
66. <i>Pneumia crispi</i> (Freeman, 1953)	EUR	EN	–	+	ix
67. <i>Pneumia gracilis gracilis</i> (Eaton, 1893)	EUR	–	+	+	iii–viii
68. <i>Pneumia nubila</i> (Meigen, 1818)	EUR	–	+	+	iii–xi
69. <i>Pneumia pilularia</i> (Tonnoir, 1940)	EUR	–	+	+	iii–xi
70. <i>Pneumia rivularis</i> (Berdén, 1954)	PAL	EN	+	–	iii–v
71. <i>Pneumia trivialis</i> (Eaton, 1893)	EUR	–	+	+	iii–x
72. <i>Tonnoiriella sieberti</i> Wagner, 1993	SBM	EN	+	+	v–viii
73. <i>Ulomyia annulata annulata</i> (Tonnoir, 1919)	EUS	–	+	+	vi–ix
74. <i>Ulomyia cognata</i> (Eaton, 1893)	EUR	–	+	–	iii–v
75. <i>Ulomyia fuliginosa</i> (Meigen, 1804)	EUR	–	+	+	iv–ix

collected at 226 localities (JEŽEK 2006a), Jizerské hory Mts. and Frýdlant region – 78 species collected at 79 localities (JEŽEK *et al.* 2008) and Orlické hory Mts. – 66 species collected at 145 localities (JEŽEK & HÁJEK 2007). A higher number of species collected at a similar number of localities as in the Podyjí NP was found in the Bílé Karpaty PLA, where 107 species were recorded from 78 localities (JEŽEK & OMELKOVÁ 2012). A lower number of species are known from regions where Psychodidae were collected at a comparably lower number of localities: Pálava Biosphere Reserve of UNESCO – 51 species from 41 localities (JEŽEK 1999a), Kokořínsko PLA – 39 species from 36 localities (JEŽEK 2006b), Krkonoše Mts. (high altitudes) – 23 species from 15 localities (JEŽEK *et al.* 2010), and industrial region of Duchcov and Bílina – 47 species from 7 localities (JEŽEK & BARTÁK 2000).

Altogether 10 species classified in the national Red List of threatened invertebrates (JEŽEK 2005) were recorded in the Podyjí NP (Table 2). Six of them are regarded as critically endangered: *Trichomyia urbana*, *Promormia silesiensis*, *Jungiella laminata*, *Parajungiella ellisi*, *P. pseudolongicornis* and *Psycmera integella*. Four species have been classified as endangered: *Promormia eatoni*, *Threticus incurvus*, *Pneumia crispis* and *Tonnoiriella sieberti*. Furthermore, two species, namely *Trichomyia hardeggensis* sp. nov. and *Philosepedon dumosum*, can be considered to be nationally scarce species based on present knowledge of their distribution in the Czech Republic. They represent new and remarkable records, not included in the Red List so far.

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The editors of the journal *Acta Entomologica Musei Nationalis Pragae* greatly appreciate the time and advise generously given by all the reviewers on papers appearing in volumes 52(1), 52(2), 52 (supplementum 1) and 52 (supplementum 2). The non-anonymous reviewers are:

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