

Fourth supplement to the acalyptrate Diptera fauna of the Czech Republic and Slovakia

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Abstract: Thirty-one species of three acalyptrate families (*Chyromyidae*, *Milichiidae*, *Carnidae*) are recorded from the Czech Republic and Slovakia. Ten species (*Chyromyidae* 1, *Milichiidae* 7, *Carnidae* 2) are new additions to the fauna of the Czech Republic, four (*Milichiidae* 2, *Carnidae* 2) are new to Slovakia. Further species are new for particular regions of the Czech Republic, five for Bohemia and two for Moravia & Silesia. The most important records are as follows: *Aphantosoma socium* Collin, 1949 (second finding in continental Europe), *Madiza pachymera* Becker, 1908 and *Neophyllomyza leanderi* Hendel, 1924 (northernmost occurrence), *Phyllomyza beckeri* Kramer, 1920 (confirmed occurrence in Central Europe), *P. rubricornis* Schmitz, 1924 (westernmost localities), *Meoneura alpina* Hennig, 1948 (second record outside the Alps). Distribution of all species is reviewed and supplemented. New biological information obtained from the material examined is presented in a number of poorly known or rare species.

Keywords: Faunistics, *Chyromyidae*, *Milichiidae*, *Carnidae*, new records, distribution, biology.

This paper represents a further contribution to the knowledge of the fauna of the acalyptrate *Diptera* in the Czech Republic and Slovakia. As in three former supplements (Roháček 1985, 1987, 1995c), new records of the acalyptrate flies of some families from the above countries are presented. The paper was stimulated by the preparation of the second edition of the checklist of the Czech and Slovak *Diptera*.

All species are listed with full locality (label) data, including grid mapping code (in parentheses behind the locality name). The majority of the material has been identified by the author. Identifications of other specialists are specified in the text.

Collections in which the material examined is deposited are abbreviated as follows: MBP - Collection of Dr. M. Barták, CSc. (Praha), MHK - Muzeum východních Čech (Hradec Králové), SMO - Slezské zemské muzeum (Opava).

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Chyromyidae

New recent records of the family *Chyromyidae* from the Czech and Slovak Republics were published by Ebejer & Roháček (1995). Some further material, received from Dr. M. Barták, CSc. (Praha) after the above-mentioned paper was already in press, is presented here, including a species additional to the fauna of the Czech Republic.

Aphantiosoma socium Collin, 1949

CZECH REPUBLIC: **Bohemia:** Bílina-V. Klín pond, sek.3 (5449), 50.36N 13.43E, 1 ♀ 29.4.1995, 210 m; Bílina, sek.1 (5449), 50.34N 13.44E, 1 ♀ 28.5., 1 ♀ 1.8.1995, 340 m, dump restoration; Bílina, sek.4 (5449), 50.34N 13.46E, 14 ♂ 7 ♀ 28.5., 2 ♀ 1.8.1995, 200 m, mine dump, (MBP, SMO, coll. M. J. Ebejer); between Louny and Duchcov, 1 ♀ 9.5.1993; between Praha and Čelákovice, 1 ♀ 22.7.1992; between Nová Huť and Prachatic, 1 ♂ 22.7.1992, all by means of car net, M. Barták leg., M. J. Ebejer det. (MPB).

A little known species described from Great Britain (Collin 1949) and since only recorded from Germany (von Tschirnhaus 1992). However, there is an unconfirmed record from the former Czechoslovakia (Soós 1984) and Ebejer (in litt.) examined specimens from Tunisia. Obviously, the species is widespread in the western Palaearctic area. First reliable records from the Czech Republic.

Gymnochiromyia inermis (Collin, 1933)

CZECH REPUBLIC: **Bohemia:** Vráž u Písku (6650), 49.23N 14.08E, 1 ♂ 1 ♀ 31.5., 1 ♂ 3.6.1993, 7 ♂ 2 ♀ 30.5.1994, 400 m, damp meadow, all M. Barták leg., M. J. Ebejer det. (MBP).

The species has only once been recorded from Bohemia (Nová Rabyně, see Ebejer & Roháček 1995) and, therefore, the above records represent a valuable addition to the knowledge of its distribution in the region.

Milichiidae

Relatively rich material of the family has become available through the collecting activity of Dr. M. Barták and the author. Numerous records of three commonest species, i.e. *Madiza glabra* Fallén, 1820, *Desmometopa m-nigrum* (Zetterstedt, 1848) and *D. sordida* (Fallén, 1820), are not listed here. Records of *Milichiella argyrogaster* (Perris, 1876) from the Czech Republic were already published (Roháček 1995a); new records of all the other species are given in full, because the knowledge of their distribution and biology in both countries under study has been very insufficient.

Madiza pachymera Becker, 1908

CZECH REPUBLIC: **Bohemia:** Praha-Háje (5953), 50.01N 14.32E, 1 ♀ 29.5.1992, 250 m, damp meadow; Kašperské Hory 2km SW (6847), 49.08N 13.33E, 1 ♀ 1.7.1995, 600 m, nr. Losenice brook, M. Barták leg. (MBP). **Moravia & Silesia:** Šilheřovice-Černý les res. (6075), 1 ♀ 10.7.1991, 1 ♀ 10.6., 1 ♀ 24.6.1992, sweeping undergrowth of deciduous forest; Třešť-Klučí rez. (6659), 1 ♀ 29.7.1995, sweeping undergrowth of deciduous forest; Hostýn Mt. nr. Bystřice pod Hostýnem (6672), 1 ♀ 19.7.1995, on beech trunk, all J. Roháček leg. (SMO).

SLOVAK REPUBLIC: Pstruša nr. Zvolen (7481), 48.33N 19.18E, 1 ♂ 26.7. 1989, 450 m, damp meadow, M. Barták leg. (SMO).

A rare species of almost unknown biology. It has only been recorded from Croatia, Hungary (Papp 1978, 1984) and Slovakia (Roháček & Gregor 1984, Roháček 1987, 1995b). New species to the Czech Republic and the northernmost known records. The occurrence of females in old forests with quantities of rotting wood (one female was caught directly on a fallen beech trunk) suggests association of the species with dead wood.

Leptometopa latipes (Meigen, 1830)

CZECH REPUBLIC: **Bohemia:** Duchcov, 2 km E (5348), 50.36N 13.43E, 1♂ 1.7.1993, 220 m, deciduous wood; dtto, 4 km E, 50.37N 13.41E, 1♂ 29.7.1993, 260 m, edge of oak wood; Budyně n. Ohří, 3 km W (5550), 50.24N 14.06E, 1♂ 2♀ 21.9.1987, 190 m, damp meadow; Roztoky-Tiché údolí (5852), 50.09N 14.24E, 1♂ 22.6.1985, 250 m, mixed forest; dtto 1♂ 1♀ 14.9.1990, steppe; Pečky ZZN (5855), 50.05N 15.02E, 1♀ 7.-14.8., 1♂ 2♀ 14.-28.8. 1987, 200 m, light trap, store, all M. Barták leg. (MBP); Hradec Králové-Roudnička (5861), 1♀ 10.6.1992, boggy meadow, B. Mocek leg. (MHK); Praha-Ruzyně (5951), 50.05N 14.18E, 1♀ 13.6.1994, Malaise trap; Kunice (6053), 49.56N 14.40E, 1♂ 8.-9.6., 1♀ 11.-15.6.1985, 430 m, Malaise trap in garden; Nová Rábyně (6152), 49.49 N 14.26E, 1♂ 20.9., 2♀ 19.10.1988, 280 m, flowering *Hedera*, all M. Barták leg. (MBP); Palupín nr. Strmilov (6857), 1♂ 16.6.1993, sweeping undergrowth of mixed forest, J. Roháček leg. (SMO); between Kunice and Praha, 1♂ 27.6.1992; between Uhlířské Janovice and Kunice, 1♂ 27.9.1992; between Uhlířské Janovice and Praha, 1♀ 16.8.1992, all by means of car net, M. Barták leg. (MBP); **Moravia & Silesia:** Chlebičov-Svobodský les (distr. Opava) (6073), 3♂ 29.9.1994, sweeping over meadow; Šilheřovice (distr. Opava) (6075), 1♂ 23.6.1994, on flowers; Raduň-park (distr. Opava) (6173), 1♂ 1♀ 24.9., 4♂ 2♀ 8.10.1991, on flowering *Hedera helix*, all J. Roháček leg. (SMO); Větkovice (distr. Opava) (6272), 1♀ 13.2., 1♀ 16.2., 1♀ 20.2.1994, ex bird nest, V. Bryja leg. (SMO); Třinec-Tyra (6377), 49.37N 18.38E, 1♀ 6.8.1985, 500 m, compositae flowers; Moravskoslezské Beskydy Mts.-Muřinkový Mt. (6477), 49.31N 18.39E, 1♀ 25.7.1989, 950 m, peat-bog; Chropyně (6670), 49.21N 17.21E, 1♀ 23.9.1990, 190 m, lowland wood, all M. Barták leg. (MBP); Třešť env. (6758), 1♂ 13.6.1993, on flowers, J. Roháček leg. (SMO); Lednice (7266), 48.48N 16.48E, 1♀ 22.7.1989, 160 m, park vegetation; between Vsetín and Makov, 1♀ 31.7.1992, car net, M. Barták leg. (MBP).

SLOVAK REPUBLIC: Vyšné Ružbachy 1 km NW (6689), 49.18N 20.33E, 1♂ 25.7.1986, 650 m, pasture, M. Barták leg. (MBP); Streda n. Bodrogom (7696), 1♀ 5.6.1988, sweeping undergrowth of deciduous forest, J. Roháček leg. (SMO); Hegyfarok (8177), 47.50N 18.36E, 1♂ 16.10.1986, 220 m, steppe; between Čadca and Jablunkov, 1♂ 31.7.1992, car net, M. Barták leg. (MBP).

A widespread, nearly cosmopolitan species (Papp 1984). Its larvae are coprophagous or saprophagous, often occurring in nests of birds. As previous records from the Czech Republic are scarce (and mostly without locality data - cf. Roháček 1987) and no published records from Slovakia are available, all the material examined is listed above. New species for Slovakia.

Leptometopa niveipennis (Strobl, 1900)

CZECH REPUBLIC: Bohemia: Duchcov 4 km E (5348), 50.37N 13.41E, 1♀ 29.5.1993, 260 m, edge of oak wood, M. Barták leg. (MBP).

SLOVAK REPUBLIC: Streda n. Bodrogom (7696), 6♂ 5.6.1988, sweeping steppe vegetation; Kamenný Most nr. Štúrovo (8177), 1♀ 19.7.1983, sweeping over saline meadow, J. Roháček leg. (SMO).

A widespread Palearctic species mainly occurring in warm, open or semiopen habitats. It has not been recorded from the Czech Republic although it is known from all neighbouring countries (cf. Papp 1984). It has been found in only one locality in Slovakia (Roháček & Gregor 1984; Gregor 1986) and, therefore, two additional Slovak records are listed.

Neophyllomyza acyglossa (Villeneuve, 1920)

CZECH REPUBLIC: **Bohemia:** Duchcov, 2 km E (5348), 50.36N 13.43E, 1♂ 16.6.1993, 220 m, decid. wood; Praha-Háje (5953), 50.01N 14.32E, 1♀ 2.7.1992, 250 m, damp meadow; Kunice env. (6053), 49.56N 14.40E, 1♂ 21.7.1984, 430 m, sweeping vegetation, dtto, 1♂ 20.-21.8.1985, Malaise trap in garden; Velké Popovice, 2 km SE (6053), 49.54N 14.39E, 1♀ 15.9.1984, 450 m, edge of forest, 5♂ 4♀ 15.8.1987, 1♂ 1♀ 10.7.1988, 4♂ 15.7.1990, 470 m, edge of spruce forest; Nová Rábyně (6152), 49.49 N 14.26E, 1♂ 19.10.1988, 280 m, flowering *Hedera*; Jince, 2 km E (6249), 49.48N 14.00E, 1♂ 1.9.1987, 420 m, spruce forest; Dobříš, 3 km W (6251), 49.47N 14.08E, 1♀ 19.6.1988, 400 m, edge of wood; Vráž u Písku (6650), 49.23N 14.08E, 1♀ 1.6.1992, 1♂ 31.5.1994, 400 m, damp meadow, all M. Barták leg. (MBP). Šumava Mts.-Čeňkova píla nr. Vydra river (6848), 1♂ 6.7.1992, clearing in forest, J. Roháček leg. (SMO). **Moravia & Silesia:** Chlebičov-Arnoštov (distr. Opava) (6073), 1♀ 21.7.1994, sweeping undergrowth of mixed forest; Bělá nr. Chuchelná-Doubky (6074), 1♀ 13.7.1995, sweeping undergrowth of oak forest; Šilheřovice-Černý les rez. (6075), 2♀ 10.7.1991, 1♂ 24.6.1992, 2♂ sweeping undergrowth of deciduous forest, 2♂ 12.5.1994

on rotting tree trunks; Raduň-park (distr. Opava) (6173), 1♂ 21.6.1995, on fermented tree sap; Polanský les res. nr. Ostrava (6275), 1♀ 23.7.1991, sweeping undergrowth of deciduous forest, all J. Roháček leg. (SMO); Třinec-Jahodná (6278), 49.46N, 18.43E, 1♂ 14.6.1987, 400 m, damp meadow, M. Barták leg. (MBP); Tichá nr. Frenštát p. Radhoštěm (6475), 1♀ 29.6.1994, sweeping over boggy meadow, J. Roháček leg. (SMO); Moravskoslezské Beskydy Mts.-Muřinkový Mt. (6477), 49.31N 18.39E, 1♂ 13.6.1987, 1♀ 24.7.1990, 950 m, peat-bog; Kozlov nr. Jihlava, 2km E (6560), 49.24N 15.41E, 1♂ 21.5.1986, 340 m, meadow nr. Píccetum, M. Barták leg. (MBP); Moravskoslezské Beskydy Mts.-Malinová (6575), 1♀ 27.6.1991, on rotting tree trunks; Třešť-Klučí rez. (6659), 1♀ 18.6.1993, on rotting tree trunks; Třešť-Čenkov (6758), 1♀ 26.7.1995, clearing in forest, all J. Roháček leg. (SMO); between Vsetín and Makov, 1♂ 31.7.1992, car net, M. Barták leg. (MBP).

SLOVAK REPUBLIC: Boľany nr. Latorica river (7598), 1♂ 3.6.1988, sweeping over boggy meadow, J. Roháček leg. (SMO); Krupina 7km N (7680), 48.23N 19.06E, 1♂ 26.7.1986, 350 m, damp pasture, M. Barták leg. (MBP).

A Palaearctic species (Papp 1984), usually found in forests near rotting wood (cf. the above-mentioned data). It was collected in all major regions of the Czech Republic and Slovakia (Gregor 1987) but only a few localities were recorded (cf. Roháček & Gregor 1984, Roháček 1985, 1987, 1995b). Therefore, numerous of additional records are listed above.

Neophyllomyza leanderi Hendel, 1924

CZECH REPUBLIC: **Bohemia:** Velké Popovice 2km S (6053), 49.54N 14.39E, 1♀ 15.8.1987, 470 m, edge of spruce forest, M. Barták leg. (MBP). **Moravia & Silesia:** Třinec-Tyra (6377), 49.37N 18.38E, 1♀ 6.8.1985, 500 m, composite flowers, M. Barták leg. (SMO).

A rare species hitherto only recorded from Switzerland, Austria, Rumania (Papp 1984, 1985) and eastern Slovakia (Roháček 1987, 1995b). New species to the Czech Republic. The above records extend the northern distributional limits of the species.

Phyllomyza beckeri Kramer, 1920

CZECH REPUBLIC: **Bohemia:** between Písek and Čimelice, 1♂ 28.6.1992, car net, M. Barták leg. (SMO).

The above-listed male specimen agrees perfectly with British specimens described under the name *P. ? beckeri* by Hennig (1937). The species has the male 3rd antennal segment unusually small, characteristic chaetotaxy of frons (cf. Fig. 27 in Hennig 1937), strikingly pale palpus, etc. Although its name is somewhat doubtful (see Hennig l.c.), the species (as redescribed by Hennig 1937) is distinct and easily distinguishable from all Palaearctic congeners. *P. beckeri* was originally described from Germany (see Hennig 1937) and since only recorded from England (cf. also Papp 1984) and Poland (Nowakowski 1991). New species to the Czech Republic.

Phyllomyza donisthorpei Schmitz, 1923

CZECH REPUBLIC: **Bohemia:** Milčice nr. Pečky (5855), 50.07N 14.59E, 3♂ 1♀ 17.6.1988, 200 m, nr. pond, M. Barták leg. (MBP). **Moravia & Silesia:** Vidnava env. (5669), 1♂ 26.6.1985, sweeping over boggy meadow (L. Papp det.); Kružberk-Moravice valley (6172), 1♀ 3.7.1990, at light, both J. Roháček leg. (SMO); Kojetín 3km E (6669), 49.21N 17.20E, 1♀ 17.7.1988, 190 m, along river, M. Barták leg. (MBP).

A poorly known but probably not rare species. It is known to develop in nests of ants (e.g. *Lasius fuliginosus*). Distribution of *P. donisthorpei* is poorly known; there are only scattered records from England, France, Switzerland, Hungary, Poland, Czech Republic and Slovakia (see Papp 1984, 1985; Roháček & Gregor 1984; Nowakowski 1991). A single locality was known in Bohemia (Roháček & Gregor l.c.), but a number in Slovakia (Roháček & Gregor 1984; Gregor 1986; Roháček 1995b). The first records from Moravia and an additional finding from Bohemia are listed above.

Phyllomyza equitans (Hendel, 1919)

CZECH REPUBLIC: **Bohemia:** Duchcov, 2 km E (5348), 50.36N 13.43E, 2♂ 1♀ 9.5.1993, 220 m, deciduous wood (MBP,SMO); Kostelní Lhota nr. Nymburk (5856), 50.08 N 15.02E, 1♀ 19.4.1988, 190 m, pine wood; Praha-Háje (5953), 50.01N 14.32E, 1♀ 29.4.1992, 250 m, damp meadow (MBP); Nová Rábyň (6152), 49.49N 14.26E, 1♀ 20.4.1988, mixed wood, 1♀ 20.9.1988, flowering *Hedera* (MBP,SMO); **Moravia & Silesia:** Lipník n. Bečvou, 4 km E (6471), 49.32N 17.37E, 1♀ 8.8.1986, damp valley, M. Barták leg. (SMO).

SLOVAK REPUBLIC: Hegyfark (8177), 47.50N 18.37E, 1♀ 28.4. 1986, 200 m, oak forest, M. Barták leg. (MBP).

An uncommon species, having probably saprophagous larvae because adults were reared from rotten beech wood and from a nest of the ant *Lasius fuliginosus* (cf. Hennig 1937). *P. equitans* was originally (Hendel 1919) described from Austria and the Czech Silesia (Troppau = Opava), and later also recorded from several other countries in northern and central Europe (cf. Hennig 1937; Papp 1984) and from the Far East (Hennig 1937). Hitherto, a single record was known from the Czech Republic (Hendel 1919) and two from Slovakia (Roháček & Papp 1984; Roháček 1995b). The first records from Bohemia and additional findings from Moravia & Silesia (Czech Republic) as well as from the Slovak Republic are given herewith.

Phyllomyza flavitarsis (Meigen, 1830)

CZECH REPUBLIC: **Bohemia:** Kunice (6053), 49.56N 14.40E, 1♂ 21.-27.5.1985, Malaise trap in garden, 430 m (MBP); Uhlířské Janovice, 5 km W (6156), 49.53N 15.03E, 1♂ 16.5.1992, vegetation, 460 m, both M. Barták leg. (SMO); Toužín nr. Dačice (6958), 1♂ 19.5.1995, J. Máca leg. et coll.

SLOVAK REPUBLIC: Streda n. Bodrogom-Viničky (7596), 2♀ 17.5., 1♀ 19.5.1987, sweeping undergrowth of steppe forest, J. Roháček leg. (SMO).

A poorly known species with unknown biology. There are only scarce records from Great Britain, Sweden, Germany, Hungary (see Papp 1984), Belgium (De Bruyn 1991), Poland (Nowakowski 1991) and a single record from Slovakia (Roháček & Gregor 1984; Gregor 1986, 1987). New species to the Czech Republic.

Phyllomyza formicae Schmitz, 1923

CZECH REPUBLIC: **Bohemia:** Šumava Mts.-Jezerní slat' (6947), 49.02N 13.34E, 1♂ 2.-18.6.1995, 980 m, pan traps; between Kunice and Praha, 1♀ 8.8.1992, car net, M. Barták leg. (MBP); **Moravia & Silesia:** Třinec-Tyra (6377), 49.37N 18.38E, 1♀ 6.8.1985, 500 m, compositae flowers, M. Barták leg. (SMO).

SLOVAK REPUBLIC: Štúrovo 1 km E (8278), 47.47N 18.44E, 1♂ 25.4.1995, 110 m, lowland wood, M. Barták leg. (MBP).

A rarely recorded species developing in nests of *Formica* spp. (several breeding records - see Hennig 1937). Hitherto, it was known from Great Britain, France, Germany, Denmark (Hennig 1937; Papp 1984) and from one locality in eastern Slovakia (Roháček 1995b). New species to the Czech Republic and second record from Slovakia.

Phyllomyza longipalpis (Schmitz, 1924)

CZECH REPUBLIC: **Bohemia:** Milčice nr. Pečky (5855), 50.07N 14.59E, 1♂ 17.6.1988, 200 m, nr. pond, M. Barták leg. (MBP).

SLOVAK REPUBLIC: Jurský Šúr (7769), 48.15N 17.16E, 1♂ 1♀ 23.7.1989, 130 m, deciduous wood, M. Barták leg. (MBP,SMO).

A rare species with unknown biology. It was recorded from the Netherlands, Poland, Czech Republic, Hungary (Papp 1984) and Belgium (De Bruyn 1991). The only record from the Czech Republic (southern Moravia - Rozkošný 1978) was overlooked and, hence, not included in the former checklist (Gregor 1987). New species to Bohemia as well as to the Slovak Republic.

Phyllomyza melania (Hendel, 1919)

CZECH REPUBLIC: Bohemia: Duchcov 2km E (5348), 50.37N 13.43E, 1♂ 16.6.1993, 220 m, abandoned garden, M. Barták leg. (MBP).

SLOVAK REPUBLIC: Jurský Šúr (7769), 1♂ 11.6.1978, M. Kozánek leg. (L. Papp det., SMO).

Another rare species, hitherto only known from Central Europe - Switzerland (Papp 1985), Austria, Hungary (Papp 1984), Poland (Nowakowski 1991), Czech Republic (Hendel 1919 - Troppau = Opava) and Slovakia (Roháček 1995b). First record from Bohemia and a confirmed occurrence in Slovakia. In Switzerland (Papp 1985), adults of *P. melania* were sifted from a stump hollow.

Phyllomyza rubricornis Schmitz, 1923

CZECH REPUBLIC: Bohemia: Praha-Bohnice (5852), 50.08N 14.24E, 1♀ 25.7.1985, 250 m, vegetation, M. Barták leg. (SMO). Moravia & Silesia: Podyjí N.P.-Havraníky (7162), 1♀ 6.5.1993, steppe, B. Mocek leg. (MHK).

A very rare species of unknown biology. Hitherto, there were only a few records from Hungary and Russia (NET) (see Papp 1984). New species to the Czech Republic.

Phyllomyza securicornis Fallén, 1823

CZECH REPUBLIC: Bohemia: Duchcov 2km E (5348), 50.36N 13.43E, 1♀ 8.7.1992, 2♂ 29.5., 12♂ 7♀ 16.6., 1♂ 29.7.1993, 240 m, willow shrubs (MBP,SMO); dtto, 1♂ 1♀ 8.7.1992, 2♂ 2♀ 16.6., 2♂ 1.7.1993, 220 m, abandoned garden (MBP,SMO); dtto, 1♂ 16.6.1993, 220 m, deciduous wood; dtto, 3km E, 50.37N 13.42E, 1♂ 2♀ 16.7.1992, 1♂ 29.5.1993, 240 m, all M. Barták leg. (MBP); Praha-Bohnice 1.5km E (5852), 50.08N 14.24E, 1♀ 25.6.1988, 250 m, vegetation; Pečky 1km E (5855), 50.05N 15.03E, 1♂ 14.6.1985, 200 m, near brook; Praha-Prokopské údolí (5952), 50.02N 14.23E, 1♂ 28.5.1992, 280 m, steppe; Břežanská rokle nr. Dolní Břežany (6052), 49.58N 14.25E, 2♀ 24.6. 1990, 280 m, mixed wood; Kunice (6053), 49.56N 14.40E, 1♂ 9.-10.6., 1♀ 24.-29.6.1985, 430 m, Malaise trap in garden; Kunice-Vrchy (6053), 49.56N 14.42E, 1♂ 1♀ 27.6., 1♂ 28.7.1987, 420 m, mixed wood; Vráž nr. Písek (6650), 49.23N 14.08 E, 1♀ 3.6.1992, 400 m, damp meadow; Šumava Mts.-Popelná (6947), 49.06N 13.38E, 1♀ 4.7.1988, 950 m, meadow; Šumava Mts.-Spálenec (7049), 48.56N 13.57E, 1♂ 28.6.1992, 800 m, damp meadow; Šumava Mts.-Mrtvý luh nr. Volary (7149), 48.53N 13.51E, 2♂ 5.7.1988, 720 m, peat-bog; between Kunice and Praha, 2♂ 30.5.1993; between Prachatice and Bavorov, 1♂ 22.7., 2♀ 28.6.1992; between Bavorov and Písek, 1♂ 28.6.1992, all by means of car net, M. Barták leg. (MBP).

SLOVAK REPUBLIC: Boľany-Latorica river (7598), 1♂ 3.6.1988, sweeping over boggy meadow, J. Roháček leg. (SMO).

The commonest *Phyllomyza* species. It is widespread in the Holarctic Region (see Papp 1984) and its larvae probably develop in nests of various ants. Although *P. securicornis* was recorded from the Czech Republic (both Bohemia and Moravia & Silesia) and Slovakia (cf. Gregor 1987), the records are scarce and may partly (old ones) refer to other species; therefore, all newly acquired specimens are listed above.

Carnidae

All newly obtained (identified) specimens are listed because previous records (even those of common species) from the Czech and Slovak Republics are scarce.

Carnus hemapterus Nitzsch, 1818

CZECH REPUBLIC: Bohemia: between Kunice and Praha, 1♂ 27.6.1992, car net; between Kostelec nad Černými lesy and Říčany, 1♀ 23.5.1992, car net, both M. Barták leg. (MBP). Moravia & Silesia: Opava, in town (6073), 7♂ 12♀ (without wings) 8.6.1993, on nestlings (18 days old) of *Falco tinnunculus*, 3♀ 14.7., 1♂ 6♀ 16.7., 7♂ 14♀ 18.7., 7♂ 8♀ 21.7., 13♂ 5♀ 23.-25.7., 3♂ 1♀ 26.7.1993, 19 puparia collected 2.7., emerged 4.7 (5♀), 6.7. (1♂ 2♀), 9.7. (1♂ 2♀), 13.7. (2♀), 15.7. (1♂ 4♀), 25.7. (1♂), all reared ex

nest of *Falco tinnunculus*, J. Roháček leg. (SMO).

This widespread species has rarely been recorded from the Czech and Slovak Republics (cf. Roháček 1985), apparently because of its specialized life habits (associated with nests and nestlings of birds). It has been recorded from Moravia & Silesia (Balát & Bauer 1955; Roháček 1985) and Slovakia (Balát & Bauer 1955; Gregor 1986), from only two localities each. New species to Bohemia.

Hemeromyia anthracina Collin, 1949

CZECH REPUBLIC: **Bohemia**: Pečky ZZN (5855), 50.05N 15.01E, 5♂ 3♀ 26.6.1987, 200 m, decaying groats, M. Barták leg. (MBP, SMO).

A little known species, originally described from Egypt and later recorded also from Central Europe (Hungary - Papp 1978, 1984; Czech Republic: Bohemia - Roháček & Gregor 1984). The new records listed above are important inasmuch as they confirm the occurrence of the species in Bohemia and indicate its possible breeding medium (decayed groats). The species may have been introduced into Central Europe and is probably restricted to man-made (secondary) habitats.

Meoneura alpina Hennig, 1948

CZECH REPUBLIC: **Moravia & Silesia**: Moravskoslezské Beskydy Mts.-Košařiska (6478), 49.35N 18.40E, 1♂ 24.8.1987, 550 m, spruce wood, M. Barták leg. (MBP).

SLOVAK REPUBLIC: Chočské vrchy Mts.-Škútova dolina (6881), 1♂ 2♀ 12.6.1987, on flowering *Crataegus* sp., 1♂ sweeping over pasture, J. Roháček leg. (SMO).

A rare and insufficiently known species. The type specimens were caught on flowers in the Austrian Alps (Niedere Tauern - see Hennig 1948) and since the species has only been recorded from sheep droppings in a montane pasture in the Chočské vrchy Mts. (Carpathians) in Slovakia (Roháček 1987). The first record from the Czech Republic and additional specimens from the above Slovak locality are listed herewith.

Meoneura atoma Papp, 1981

CZECH REPUBLIC: **Bohemia**: Sokoleč (5856), 50.06N 15.05 E, 2♂ 29.5.1987, 180 m, fly trap (MBP, SMO); Jince 2km E (6249), 49.48N 14.00E, 1♂ 1.9.1987, 420 m, spruce wood, M. Barták leg. (MBP).

This species was described on the basis of the specimens swept from the vegetation in the Central Austrian Alps (Papp 1981) and later also recorded from southern Bohemia (1♂ caught on flowering *Crataegus* sp. - Roháček & Gregor 1984). Additional records from Bohemia (see above) confirm the occurrence of the species in this region and shift its northern distributional limit.

Meoneura carpathica Papp, 1977

CZECH REPUBLIC: Bohemia: Budyně n. Ohří (5550), W 50.24E 14.06E, 1♂ 26.8., 2♂ 21.9.1987, 190 m, damp meadow; Orlické hory Mts.-Jelenka (5764), 50.17N 16.25E, 1♂ 28.7.1990, meadow; Sadská (5855), 50.10N 14.59E, 1♂ 3.5.1988, 180 m, pine forest; Velké Popovice, 2km SE (6053), 49.54N 14.39E, 1♂ 1.5.1988, 470 m, forest edge; Uhlířské Janovice (6156), 49.53N 15.03E, 2♂ 16.9.1990, 460 m, damp meadow; Lnáře, 5km N (6548), 49.29N 13.47E, 6♂ 19.8.1989, 400 m, flowering *Daucaceae*, M. Barták leg. (MBP); Albrechtice n. Vlt. (6751), 10♂ 2.8.1995, J. Máca leg. et. coll.; Šumava Mts.-Špičácké sedlo (6845), 49.10N 13.13E, 1♂ 20.8., 1♂ 21.8.1989, meadow; Šumava Mts.-Jezerní slaf (6947), 49.02N 13.34E, 2♂ 23.8.1989, peat-bog; Šumava-Chalupská slaf (6947), 49.01N 13.39E, 1♂ 10.6.1989, 1♂ 15.9.1990, 860 m, peat-bog, M. Barták leg. (MBP); Šumava Mts.-Horská Kvilda env. (6947), 49.03N 13.34E, 1♂ 21.5., 1♂ 21.7.1992, 1000 m, damp meadow, M. Barták leg. (MBP), 2♂ 11.7.1992, sweeping over meadow, J. Roháček leg. (SMO); Šumava-Dol. Antýgl, Hamerský potok (6947), 1♂ 6.7.1992, sweeping undergrowth of mixed forest, J. Roháček leg. (SMO). Šumava Mts.-Plechý Mt. (7249), 48.46N 13.53E, 1♂ 22.7.1992, 1050 m, on *Glyceria*; between Uhlířské Janovice and Strančice, 1♂ 12.9.1992; between Nová Huť and Prachatice, 2♂ 22.7.1992; between Volary and Nová Pec, 1♂ 22.7.1992, all by means of car net, M. Barták leg. (MBP).

Moravia & Silesia: Hrubý Jeseník-Velká kotlina (5969), 3♂ 5♀ 20.6., 1♂ 21.6.1990, on decayed vegetation, 1♂ 20.6.1990, sweeping over boggy meadow; Albertovec nr. Bolatice (6074), 1♂ 16.7.1992, on horse excrement; Hradec nad Moravicí-Žimrovice (6173), 3♂ 2♀ 29.8.1991, on ashes from bonfire, all J. Roháček leg. (SMO); Třinec-Jahodná (6278), 49.46N 18.43E, 1♂ 14.6.1987, 400 m, damp meadow; Třinec-Tyra (6377), 49.37N 18.38E, 3♂ 6.8.1985, 500 m, compositae flowers; Moravskoslezské Beskydy Mts.-Košářská (6478), 49.35N 18.40E, 2♂ 24.8.1987, 550 m, spruce wood; Moravskoslezské Beskydy Mts.-Muřinkový Mt. (6477), 49.31N 18.39E, 1♂ 13.6.1987, 950 m, peat-bog; Moravskoslezské Beskydy Mts.-Košářská (6478), 49.35N 18.40E, 2♂ 24.8.1987, 550 m, spruce wood; Kozlov nr. Jihlava, 2km E (6560), 49.24N 15.41E, 5♂ 27.5., 2♂ 22.6.1986, 540 m, meadow nr. *Piceetum*; Buchlov, 2km NW (6869), 49.07N 17.18E, 1♂ 27.5.1986, 400 m, edge of deciduous forest; between Bystřice p. Hostýnem and Vsetín, 1♂ 31.7.1992, car net, all M. Barták leg. (MBP).

SLOVAK REPUBLIC: Chočské vrchy Mts.-Škútova dolina (6881), 3♂ 12.6.1987, on flowering *Crataegus* sp., J. Roháček leg. (SMO); Vyšné Ružbachy, 1km NW (6689), 49.18N 20.33E, 6♂ 25.7.1986, pasture, M. Barták leg. (MBP).

The species is only known from Central Europe (Papp 1984). In the Czech and Slovak Republics, only a few localities were known (cf. Gregor & Papp 1981; Roháček 1985, 1995b; Gregor 1986), but, according to the records listed above, the species appears to be rather frequent occurring on a variety of habitats.

Meoneura exigua Collin, 1930

CZECH REPUBLIC: Bohemia: Praha-Troja (5852), 50.07N 14.24E, 1♂ 15.5., 5♂ 8♀ 17.6., 9♂ 17♀ 3.7., 9♂ 6♀ 17.7., 1♂ 29.7.1986, 240 m, fly trap (meat), (MBP, SMO); Pečky 1kmE (5855), 50.05N 15.03E, 1♂ vii.1986, 200 m, fly trap; Praha-Prokopské údolí (5952), 50.02N 14.23E, 1♂ iii-vi.1988, 280 m, fly trap, M. Barták leg. (MBP).

SLOVAK REPUBLIC: Hegyfárok (8177), 47.50N 18.36E, 15♂ 21♀ 17.8.1986, 1♂ 16.10.1986, 180 m, fly trap, M. Barták leg. (MBP, SMO).

A little known and rarely recorded species (France, eastern Germany, Slovakia, Hungary - see Hennig 1948; Papp 1984; Roháček 1987). Hitherto, a single record was known from western Slovakia (Roháček 1987: Studienka-Rudava valley). Most of the above listed specimens were captured by means of fly traps. New species to the Czech Republic and additional findings from southern Slovakia.

Meoneura flavifacies Collin, 1930

CZECH REPUBLIC: Bohemia: Uhlířské Janovice (6156), 49.53N 15.03E, 5♂ 1.8.1990, 460 m, damp meadow; Jince 2km E (6249), 49.48N 14.00E, 1♂ 1.9.1987, 420 m, spruce wood, M. Barták leg. (MBP); Šumava Mts.-Horská Kvilda (6947), 49.03N 13.34E, 1♀ 11.7.1992, sweeping over meadow, J. Roháček leg. (SMO), 1♂ 21.5.1992, 1000 m, damp meadow, M. Barták leg. (MBP); between Prachatice and Bavorov, 1♂ 22.7.1992; between Volary and Prachatice, 1♂ 26.9.1992; between Volary and Nová Pec, 1♂ 22.7.1992, all car net, M. Barták leg. (MBP). **Moravia & Silesia:** Vidnava env. (5669), 2♂ 29.7.1985, sweeping over boggy meadow; Albertovec nr. Bolatice (6074), 1♂ 27.6.1989, 21♂ 3♀ 16.7.1992, 1♂ 29.9.1993, on horse excrement, J. Roháček leg. (SMO); between Prostějov and Kunštát, 1♂ 5.8.1992, car net, M. Barták leg. (MBP).

SLOVAK REPUBLIC: Vyšné Ružbachy, 1km NW (6689), 48.18N 20.33E, 3♂ 25.7.1986, 650 m, pasture, M. Barták leg. (MBP); Somotor env. (7696), 1♀ 17.5.1987, boggy meadow, 1♀ 17.5.1985, steppe forest, J. Roháček leg. (SMO); Bieľ nr. Čierna n. Tisou, 2km W (7698), 48.24N 22.02E, 1♂ 23.4.1985, 200 m, deciduous forest, M. Barták leg. (MBP).

A Holarctic species, common in the Czech and Slovak Republics, although only several records were published from these countries (cf. Doskočil 1962; Gregor & Papp 1981; Roháček & Gregor 1984; Roháček 1987, 1995b). It seems to be associated with excrement on pastures and allied habitats.

Meoneura hungarica Papp, 1977

SLOVAK REPUBLIC: Hegyfárok (8177), 47.50N 18.36E, 1♂ vi. 1986, 180 m, fly trap (cheese),

M. Barták leg. (SMO).

Probably a species with wide distribution (cf. Gregor & Papp 1981; Papp 1984), although only recorded from Hungary, Slovakia, Czech Republic and Tunisia. Interestingly, Gregor & Papp (1981) found it to be one of the most frequent species in their material from the Czech Republic and Slovakia, whereas a single male has been found in the material examined.

Meoneura lacteipennis (Fallén, 1823)

CZECH REPUBLIC: **Bohemia:** Pečky 1 km E (5855), 50.05N 15.03E, 1♂ 3.6.1985, 200 m, compositae flowers, 1♂ 16.5.1985, *Salix* shrubs; Kunice-Vrchy (6053), 49.56N 14.42E, 1♂ 27.6.1987, 420 m, mixed wood; Nová Rábyně (6152), 49.49N 14.26E, 1♂ 9.6.1987, 280 m, *Spiraea* flowers, M. Barták leg. (MBP). **Moravia & Silesia:** Kozlov nr. Jihlava, 2 km E (6560), 49.24N 15.41E, 2♂ 27.5.1986, 540 m, meadow nr. Písečtův; Buchlov, 2 km E (6869), 49.07N 17.18E, 1♂ 27.5.1986, 400 m, edge of deciduous forest, M. Barták leg. (MBP).

SLOVAK REPUBLIC: Vihorlat Mts.-Vinné (7197), 1♂ 21.5.1987, sweeping undergrowth of deciduous forest, J. Roháček leg. (SMO).

The species is widespread in the western part of the Palaearctic Region (see Papp 1984) but records from the Czech Republic are infrequent (Doskočil & Hůrka 1962: Lužany nr. Plzeň; Doskočil 1962: Rychlebské hory Mts.; Roháček 1987: Moravskoslezské Beskydy Mts.-Mionší reserve). The first record from Slovakia and additional ones from the Czech Republic are listed above.

Meoneura minutissima (Zetterstedt, 1860)

SLOVAK REPUBLIC: Chočské vrchy Mts.-Škútova dolina (6881), 1♂ 12.6.1987, on flowering *Crataegus*, J. Roháček leg. (SMO).

Another uncommon species known from several countries in northern and central Europe (Papp 1984). In the Czech Republic, it was recorded from two localities in Moravia & Silesia (Doskočil 1962; Gregor 1973; Gregor & Papp 1981); in Slovakia, similarly, two records are known (Roháček & Gregor 1984; Gregor 1986; Roháček 1987). An additional record from Slovakia is listed above.

Meoneura neglecta Collin, 1930

CZECH REPUBLIC: **Moravia & Silesia:** Albertovec nr. Bolatice (6074), 3♂ 16.7.1992, on horse excrement; Ostrava-Heřmanický rybník (pond) (6176), 1♂ 15.8.1989, sweeping undergrowth of deciduous forest, J. Roháček leg. (SMO); Moravskoslezské Beskydy Mts.-Košariska (6478), 49.35N 18.40E, 1♂ 24.8.1987, 550 m, spruce wood, M. Barták leg. (MBP).

An uncommon species known from northern and central Europe (Papp 1984). There are sporadic records from both the Czech Republic (Gregor & Papp 1981: Hoštka nr. Přimda; Doskočil 1962: Rychlebské hory Mts.) and Slovakia (Papp 1978: Vysoké Tatry Mts.; Roháček & Gregor 1984: Turček). Additional localities from Moravia & Silesia are listed above.

Meoneura neottiphila Collin, 1930

CZECH REPUBLIC: **Bohemia:** Praha-Troja (5852), 50.07N 14.24E, 2♂ 16.5.1985, 200 m, nr. Vltava river, 1♂ 15.5., 2♂ 3.7., 2♂ 17.7.1986, 240 m, fly trap; Sokoleč (5856), 50.06N 15.05E, 2♂ vii-viii.1987, fly trap; Praha-Prokopské údolí (5952), 50.02N 14.23E, 6♂ iii-vi.1988, 280 m, fly trap; Slapy-dam (6152), 49.50N 14.25E, 8♂ 1♀ v.1988, 340 m, fly trap, M. Barták leg. (MBP); Albrechtice n. Vlt. (6751), 23♂ 2.8.1995, at muddy pool of wild pig, J. Máca leg. et. coll.; Šumava Mts.-Plechý Mt. (7249), 48.46N 13.52E, 1♂ 22.6.1988, 1300 m, fly trap, M. Barták leg. (MBP). **Moravia & Silesia:** Šilheřovice-Černý les res. (6075), 1♂ 2♀ 18.8.1992, sweeping undergrowth of deciduous forest, J. Roháček leg. (SMO); Větrkovice (6272), 3♂ 4.2., 2♂ 6.2., 2♂ 7.2., 1♂ 8.2.1994, reared ex nests of birds, V. Bryja leg. (SMO); Moravskoslezské Beskydy Mts.-Muřinkový vrch Mt. (6477), 49.31N 18.39E, 1♂ v-vii., 3♂ vii-viii.1987, 900 m, fly trap, M. Barták leg. (MBP).

SLOVAK REPUBLIC: Hegyfarok (8177), 47.50N 18.36E, 1♂ 17.8.1986, 180 m, fly trap, M. Barták leg. (MBP).

A species widely distributed in northern and central Europe (Papp 1984). Previous records from the Czech Republic are infrequent (see Gregor & Papp 1981; Roháček 1987); in Slovakia, a single locality is known (Roháček 1987, 1995b). The species is known to prefer decaying meat (Gregor & Papp 1981), but the range of its breeding substrates obviously is more diversified because adults were also found on decayed fungi (Roháček 1987), reared from nests of birds and caught in a muddy pool of the wild pig (material examined).

Meoneura prima (Becker, 1903)

CZECH REPUBLIC: **Bohemia:** Pečky ZZN (5855), 50.05N 15.03E, 3♂ 26.6.1987, 200 m, decaying groats; between Praha and Kunice, 1♂ 30.6.1992, car net; between Prachatice and Bavorov, 1♂ 26.9.1992, car net, M. Barták leg. (MBP). **Moravia & Silesia:** Opava, in town (6073), 4♂ 15♀ 14.7., 5♂ 10♀ 16.7., 2♂ 2♀ 18.7., 2♂ 1♀ 21.7., 1♂ 23.-25.7.1993, 1♀ - puparium collected 2.7., emerged 18.7.1993, all reared ex nest of *Falco tinnunculus*, J. Roháček leg. (SMO); between Prostějov and Kunštát, 1♂ 5.8.1992, car net, M. Barták leg. (MBP).

SLOVAK REPUBLIC: Borský Jur (7468), 48.36N 17.03E, 1♂ 22.7. 1989, 190 m, edge of pine wood; between Makov and Čadca, 1♂ 31.7.1992, car net, M. Barták leg. (MBP).

A Holarctic species with strong tendency to synanthropy in Central Europe (Gregor & Papp 1981). A few records are known from the Czech Republic (Gregor & Papp 1981; Roháček & Gregor 1984; Roháček 1985, 1987). First documented records from Slovakia (see Gregor 1986). A series of adults was reared, together with numerous specimens of *Carnus hemapterus*, from a nest of *Falco tinnunculus* in the town (material examined).

Meoneura triangularis Collin, 1930

CZECH REPUBLIC: **Bohemia:** Duchcov, 2km E (5348), 50.37N 13.43E, 1♂ 28.4., 1♂ 16.6., 220 m, deciduous wood, 1♂ 16.6., abandoned garden, 1♂ 16.6.1993, willow shrubs; Roztoky-Tiché údolí (5852), 50.09N 14.21E, 1♂ 22.6.1985, mixed forest; Sadská (5855), 50.10N 14.59E, 1♂ 3.5.1988, 180 m, pine forest; Nová Rábyň (6152), 49.49N 14.26E, 1♂ 19.10.1988, 280 m, flowering *Hedera*; Lnáře, 5km N (6548), 49.29N 13.47E, 2♂ 19.8.1989, 400 m, flowering *Daucaceae*; Sázava env., 1♂ 16.5.1992, car net, all M. Barták leg. (MBP, SMO). **Moravia & Silesia:** Chlebičov-Svobodský les (6073), 1♂ 25.8.1994, sweeping over meadow, J. Roháček leg. (SMO).

A Holarctic species (Papp 1981), in the Czech Republic only known from four localities in southern Moravia (Gregor & Papp 1981). New species to Bohemia and Silesia. Interestingly, almost all specimens examined were swept from (probably flowering) vegetation.

Meoneura vagans (Fallén, 1823)

CZECH REPUBLIC: **Bohemia:** Budyně n. Ohří, 3km W (5550), 50.24E 14.06E, 1♂ 26.8.1987, damp meadow; Praha-Ládví (5852), 50.08N 14.28E, 2♂ 3.8.1987, 300 m, nr. pond; Praha-Libeň (5852), 50.08N 14.28E, 2♂ 26.5.1985, 250 m, park vegetation; Pečky 1km E (5855), 50.05N 15.03E, 1♂ 14.6.1985, 200 m, nr. brook; Štířín env. (6053), 49.55N 14.37E, 1♂ 3.5.1990, edge of wood; Kunice-Vrchy (6053), 49.56N 14.42E, 4♂ 28.7.1987, 420 m, mixed wood; Mnichovice-Božkov (6054), 49.56N 14.43E, 1♂ 1.7.1984, 350 m, nr. pond, all M. Barták leg. (MBP); Albrechtice n. Vlt. (6751), 1♂ 2.8.1995, J. Máca leg. et. coll.; Šumava Mts.-Plechý Mt. (7249), 48.46N 13.53E, 1♂ 22.7.1992, 1050 m, on *Glyceria*; between Praha and Kunice, 1♂ 13.8.1992; between Horská Kvilda and H. Vltavice, 1♂ 21.7.1992; between Volary and Nová Pec, 1♂ 22.7.1992; between Žďár n.S. and Humpolec, 1♂ 5.8.1992, M. Barták leg. (MBP). **Moravia & Silesia:** Chlebičov-Svobodský les (6073), 1♂ 25.8.1994, sweeping over meadow, J. Roháček leg. (SMO).

SLOVAK REPUBLIC: Chočské vrchy Mts.-Škútova dolina (6881), 5♂ 1♀ 12.6.1987, on carrion of a frog; Klášterské lúky res. (distr. Martin) (7079), 1♂ 10.6.1987, sweeping undergrowth of deciduous forest, J. Roháček leg. (SMO).

A Holarctic species, infrequently recorded from both the Czech Republic and Slovakia (cf. Gregor & Papp 1981; Roháček & Gregor 1984; Roháček 1987). Additional localities from all major regions of the countries under study are given above. As in the foregoing species, the majority of specimens originate from sweep samples.

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Čtvrtý doplněk k faunistice Diptera Acalyptrata v České republice a na Slovensku

Jsou prezentovány nové nálezy 31 druhů tří čeledí akalyptrálních dvoukřídých (*Chyromyidae*, *Milichiidae*, *Carnidae*) z České republiky a Slovenska. Deset druhů (*Chyromyidae* 1, *Milichiidae* 7, *Carnidae* 2) je nových pro faunu České republiky, čtyři (*Milichiidae* 2, *Carnidae* 2) jsou nové pro Slovensko. Dalších 5 druhů je poprvé hlášeno z území Čech a 2 z Moravy a Slezska. Nejvýznamnější nálezy: *Aphaniosoma socium* Collin, 1949 (druhý nález na evropském kontinentu), *Madiza pachymera* Becker, 1908 a *Neophyllomyza leanderi* Hendel, 1924 (nejsevernější známé nálezy), *Phyllomyza beckeri* Kramer, 1920 (potvrzený výskyt ve střední Evropě), *P. rubricornis* Schmitz, 1924 (nejzápadnější známé lokality), *Meoneura alpina* Hennig, 1948 (druhý nález mimo Alpy). U každého uvedeného druhu jsou shrnuty a doplněny poznatky o zoogeografickém rozšíření. Nové bionomické údaje, získané na základě studovaného materiálu, jsou uvedeny u řady málo známých nebo vzácných druhů.

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