

# HYMENOPTERA (*BRACONIDAE*, *APHIDIIDAE*, *ICHNEUMONIDAE*, *DIAPRIIDAE*, *SCELIONIDAE*, *PLTYGASTERIDAE*, *CERAPHRONIDAE*, *MEGAS-PILIDAE*, *DRYINIDAE*, *MUTILLIDAE*, *PEMPHRE-DONIDAE*) IN PITFALL TRAPS IN MONTANE AND SUB-ALPINE ZONE IN GIANT MTS.

## Blanokřídli (*Hymenoptera*) ze zemních pastí v montánním a subalpínském stupni Krkonoš

Vladimír ZEMAN<sup>1</sup>, Jan VANĚK<sup>2</sup>

<sup>1</sup> Tomáškova 421, CZ-500 04 Hradec Králové

<sup>2</sup> Krkonoše National Park Administration, Dobrovského 3, CZ-543 11 Vrchlabí

### Introduction

In the beginning of eighties, the KRNAP Administration followed the old traditions of fauna research in the Giant Mts., starting observation of epigeon in the frame of biomonitoring. The material was collected with circular storey pitfall traps between 1982 - 1997 and it was determined and further evaluated according to Alexejev (1978), Antropov et al. (1995), Atanasov (1981), Balthasar (1972), Bouček et al. (1957), Horstmann (1980, 1998), Johnson (1992), Lelej (1985), Macek (1996), Pulavskij (1978), Schmiedeknecht (1902-1936), Starý (1966), Schwarz (1995), Šedivý ed. (1989), Tobias (1986), Tobias et al. (1986), Yu et Horstmann (1997), Zeman (2000), Zeman et Vaněk (1999).

This paper is connected to Zeman et Vaněk (1999), where is description of investigated localities.

### Overview of found species:

#### *Braconidae*

*Chasmodon acares* van Achterberg, 1985 (f. *aptera*). Úpská rašelina, 1.10.1997, 1F.  
Distribution: Western, Central Europe. New species for the Czech Republic.

#### *Aphidiidae*

*Aphidius ervi* Haliday, 1834. Studniční hora, 6.7.1989, 1F; Kyselý kout, 24.8.1989, 3FF.  
Distribution: Holarctis, Orientalis, Australis.

*Ephedrus plagiator* (Nees, 1811). Studniční hora, 6.7.1988, 1F. Distribution: Palearctis.  
*Pauesia abietis* (Marshall, 1896). Studniční hora, 6.7.1988, 1F. Distribution: Europe, Siberia.

*Trioxys pallidus* (Haliday, 1834). Úpská rašelina, 30.6.1992, 1F. Distribution: Europe, Central Asia, the USA.

### *Ichneumonidae*

- Polyblastus alternans* (Schioedte, 1838). Studniční hora, 15.7.1996, 1M. Distribution: Western, Central, Eastern Europe; Armenia.
- Hemiteles similis* (Gmelin in Linnaeus, 1790). Úpská jáma, 11.8.1997, 1F. Distribution: Western, Central, Eastern Europe.
- Polyaulon paradoxus* (Zetterstedt, 1838), det J. Šilhavý, Prague. Kyselý kout 1989: 15.8., 2FF; 24.8., 3FF; 6.9., 5FF; 21.9., 2FF; 1990: 15.8., 1F; 29.8., 2FF; 24.8.1994, 1F. Distribution: Western, Central, Northern Europe.
- Gelis festinans* (Fabritius, 1798). Kyselý kout, 26.7.1994, 1F. Distribution: Europe.
- Megacara vagans* (Gravenhorst, 1829). Kyselý kout, 30.7.1995, 1F. Distribution: Western, Central, Eastern Europe; Siberia. New species for Bohemia. It occurs in Moravia.
- Phygadeuon cylindraceus* Ruthe, 1859. Kyselý kout, 8.8.1995, 1F. Distribution: Western, Central, Eastern Europe. New species for Bohemia. It occurs in Moravia.
- Phygadeuon exiguus* Gravenhorst, 1829. Studniční hora, 18.7.1995, 1F. Distribution: Western, Central, Eastern Europe.
- Phygadeuon ruficornis* (Gravenhorst, 1829). Kyselý kout, 30.7.1996, 1F. Distribution: Western, Central, Eastern Europe. New species for Bohemia. It occurs in Moravia.
- Stilpnus tenebricosus* (Gravenhorst, 1829). Úpská jáma, 15.8.1984, 1F. Distribution: Western, Central, Eastern Europe.
- Atractodes exilis* Haliday, 1839. Kyselý kout, 24.8.1995, 1F. Distribution: Western, Central, Eastern Europe.
- Aptesis nigrocineta* (Gravenhorst, 1815). Úpská rašelina, 11.8.1997, 1M. Distribution: Europe.
- Gambrus infernus* Thomson, 1896. Kyselý kout, 8.8.1995, 1M. Distribution: Western, Central, Eastern Europe; Tadjikistan.
- Lissonota linearis* Gravenhorst, 1829. Studniční hora, 6.7.1988, 1F. Distribution: Western, Central, Eastern Europe. New species for the Czech Republic.
- Euryproctus luteicornis* (Gravenhorst, 1829). Úpská jáma, 13.8.1995, 1F. Distribution: Western, Central, Eastern Europe. New species for Bohemia. Occurrence in Moravia is necessary to be confirmed again.
- Barycnemis bellator* (Müller, 1776). Studniční hora, 21.7.1989, 1F; 9.8.1990, 1F. Distribution: Western, Central, Eastern, Northern Europe; Caucasus. New species for Bohemia. It occurs in Moravia.
- Mesochorus vitticollis* Holmgren, 1860. Úpská jáma, 13.8.1993, 1F. Distribution: Western, Central, Eastern Europe.
- Eusterinx trichops* (Thomson, 1888). Kyselý kout, 1989: 29.6., 1M; 24.8., 1F; 5.7.1990, 1M. Distribution: Western, Central, Eastern, Northern Europe. New species for the Czech Republic.
- Plectiscus impurator* Gravenhorst, 1829. Úpská jáma, 24.7.1991, 1F. Distribution: Western, Central, Eastern Europe. New species for Bohemia. Occurrence in Moravia is necessary to be confirmed again.
- Syrphoctonus nigritarsus* (Gravenhorst, 1829). Harrachov, 14.9.1984, 1F. Distribution: Western, Central, Eastern, Northern Europe.
- Alomya samiflava* Stephens, 1835. Kyselý kout, 8.8.1995, 1F. Distribution: Western, Central Europe.
- Ichneumon bucculentus* Wesmael, 1845. Kyselý kout, 18.6.1996, 1F. Distribution: Western, Central, Eastern Europe; Caucasus; Kazakhstan; Siberia.

### **Diapriidae**

- Belyta rugosicollis* Kieffer, 1909. Studniční hora, 22.6.1996, 1F. Distribution: Europe.  
*Belyta abrupta* Thomson, 1859. Úpská rašelina, 6.7.1997, 1F. Distribution: Western, Central, Eastern Europe.  
*Spilomicrus nigripes* Thomson, 1858. Úpská rašelina, 17.9.1997, 2FF. Distribution: Western, Central, Eastern Europe.  
*Trichopria masrensis* Priesner, 1940. Studniční hora, 7.8.1996, 1F. Distribution: Central, Eastern Europe. New species for the Czech Republic.  
*Trichopria morio* (Thomson, 1859). Studniční hora, 2.10.1996, 1F. Distribution: Western, Central, Eastern Europe. New species for the Czech Republic.  
*Psilus tenuisulcus* (Kieffer, 1911). Kyselý kout, 25.7.1995, 1F. Distribution: Western, Central, Eastern Europe.

### **Scelionidae**

- Trimorus punctulator* Ruthe, 1859. Úpská rašelina, 24.6.1993, 4FF. Distribution: Western, Central, Eastern Europe. New species for the Czech Republic.

### **Platygasteridae**

- Leptacis foersteri* (Kieffer, 1914). Studniční hora, 28.8.1996, 1F. Distribution: Western, Central, Eastern Europe.

### **Ceraphronidae**

- Ceraphron brevipennis* Kieffer, 1907. Studniční hora, 12.6.1996, 1F. Distribution: Western, Central, Eastern Europe; Caucasus.  
*Ceraphron cursor* Kieffer, 1907. Studniční hora, 1996: 15.7., 1F; 7.8., 1F; 17.10., 1F. Distribution: Western, Central, Eastern Europe. New species for the Czech Republic.  
*Ceraphron fuscicornis* (Nees, 1834). Studniční hora, 1.8.1995, 2FF; 15.7.1996, 1F. Distribution: Western, Central Europe. New species for the Czech Republic.  
*Ceraphron striatus* Förster, 1856. Studniční hora, 1996: 12.6., 1F; 4.9., 1F. Distribution: Western, Central, Eastern Europe; Siberia. New species for the Czech Republic.  
*Aphanogmus fumipennis* (Thomson, 1858). Studniční hora, 19.6.1996, 1F. Distribution: Western, Central, Eastern Europe; Siberia; Indonesia; Central Africa; Central and South America. New species for the Czech Republic.

### **Megaspilidae**

- Dendrocerus applanatus* Dessart, 1965. Studniční hora, 26.6.1996, 1F. Distribution: Western, Central Europe; Sweden. New species for the Czech Republic.  
*Dendrocerus spissicornis* Hellén, 1964. Kyselý kout, 30.7.1996, 1F. Distribution: Western, Central, Eastern Europe. New species for the Czech Republic.

### **Dryinidae**

- Gonatopus formicarius* Ljungh, 1810. Úpská jáma, 21.8.1991, 1F; 30.7.1993, 1F; Kyselý kout, 22.8.1995, 2FF. Distribution: Europe, Central Asia, Siberia.  
*Chelognus lucidus* (Haliday in Curtis, 1828). Studniční hora, 15.8.1995, 1F. Distribution: Western, Central, Eastern Europe. Occurrence confirmed in the Czech Republic.  
*Neogonatopus lunatus* (Klug, 1810). Kyselý kout, 26.9.1990, 1F. Distribution: Europe, Central Asia, Mongolia, Korean peninsula.

## **Mutillidae**

*Mutilla marginata* Baer, 1848. Kyselý kout, 26.7.1994, 1F. Distribution: Western, Central, Eastern, Southern Europe; Caucasus; Syria.

## **Pemphredonidae**

*Passaloecus borealis* Dahlbolm, 1845. Kyselý kout, 25.7.1995, 1F. Boreoalpin. Distribution: Mountains Central and Northern Europe, Siberia, Northern America.

### **Summary**

The investigated material contained representatives of 46 species from 39 genera of 11 families of *Hymenoptera*. 12 species were at first time recorded in the Czech Republic, 6 species in Bohemia.

### **Souhrn**

Celkem bylo determinováno 80 kusů blanokřídleho hmyzu z 11 shora uvedených čeledí. Studovaný materiál obsahoval zástupce 46 druhů z 39 rodů. Pro území České republiky bylo zjištěno 12 nových druhů. Pro území Čech bylo nalezeno 6 nových druhů. Mezi významné nálezy patří *Polyaulon paradoxus* (Zett.) a *Passaloecus borealis* Dahl. Studovaný materiál je uložen u V. Zemana.

### **References**

- ALEXEJEV V.N. et al., 1978: Perepončatokrylyje (*Hymenoptera*). In: Medvedev G.S. (ed.): Opredělitel' nasekomykh evropejskoj časti SSSR, 3(2). *Nauka Leningrad*. 758 pp. (in Russian).
- ANTROPOV A.V. et al., 1995: Setčatokryloobraznyje, skorpionicy, perepončatokrylyje (*Megaloptera, Raphidioptera, Neuroptera, Mecoptera, Hymenoptera*). In: Ler P.A. (ed.): Opredělitel' nasekomykh Dalněvo Vostoka Rossii. 4(1). *Nauka Sankt-Petěrburg*. 606 pp. (in Russian).
- ATANASOV A. Z. et al., 1981: Perepončatokrylyje, ichneumonidy (*Hymenoptera, Ichneumonidae*). In: Medvedev G.S. (ed.): Opredělitel' nasekomykh evropejskoj časti SSSR, 3(3). *Nauka Leningrad*. 688 pp. (in Russian).
- BALTHASAR V., 1972: Grabvespen-*Sphecoidea*. In: Fauna ČSSR, Band 20. *Academia Praha*. 471 pp.
- BOUČEK Z. et al., 1957: *Apocrita (Hymenoptera)*, pp.:88-406. In: Kratochvíl J. (ed.) Klíč zvířeny ČSR II. *NČSAV Praha*. 746 pp. (in Czech).
- HORSTMANN K., 1980: Revision der europäischen *Tersilochinae* II. (*Hymenoptera, Ichneumonidae*). *Spixiana, Suppl. 4.*, pp.: 1-76.
- HORSTMANN K., 1998: Revisionen einiger Gattungen und Arten der *Phygadeuontini* II. *Entomofauna, 19.*, pp.: 433-460.
- JOHNSON N. F., 1992: Catalog of World species of *Proctotrupoidea*, exclusive of *Platygasteridae (Hymenoptera)*. *Mem. Amer. Entomol. Inst. 51*, 825 pp.
- LELEJ A. G., 1985: Osy-němki (*Hymenoptera, Mutillidae*) fauny SSSR i sopredělnych stran. *Nauka Leningrad*. 268 pp. (in Russian).
- MACEK J., 1996: Revision of the European *Belyta* Jurine. *Acta Mus. Nat. Pragae. Series B, Hist. Nat. 51(1-4)*, pp.: 1-22.
- PULAVSKIJ V. V., 1978: Perepončatokrylyje – rojuščije osy (*Hymenoptera, Sphecidae*), pp.: 173-278. In: Medvedev G. S. (ed.): Opredělitel' nasekomykh evropejskoj časti SSSR, 3(1). *Nauka Leningrad*. 583 pp. (in Russian).
- SCHMIEDEKNECHT O., 1902-1936: Opuscula Ichneumologica. *Fasc. 1-45, 3570 pp. Suppl. 1-25, 1875 pp. Blankenburg in Thüringen*.

- STARÝ P., 1966: Aphid Parasites of Czechoslovakia. *Academia Prague*. 242 pp.
- SCHWARZ M., 1995: Revision der westpaläarktischen Arten der Gattungen *Gelis* Thunberg mit apteren Weibchen und *Thaumatogetelis* Schmiedeknecht (*Hymenoptera*, *Ichneumonidae*). Teil 1. *Linzer biol. Beitr.* 27 (1), pp.: 5-105.
- ŠEDIVÝ J., (ed.), 1989: Check-list of Czechoslovak Insects III. *Hymenoptera*. *Acta Faun. Entomol. Mus. Nat. Pragae*, 19, 194 pp.
- TOBIAS V. I., 1986: Perepončatokrylyje, brakonidy (*Hymenoptera*, *Braconidae*). In: Medveděv G. S. (ed.): *Opredělitel' nasekomych evropejskoj časti SSSR*, 3(4). *Nauka Leningrad*. 502 pp. (in Russian).
- TOBIAS V. I. et al., 1986: Perepončatokrylyje, brakonidy (*Hymenoptera*, *Braconidae*). In: Medveděv G. S. (ed.): *Opredělitel' nasekomych evropejskoj časti SSSR*, 3(5). *Nauka Leningrad*. 310 pp. (in Russian).
- YU D. S. et HORSTMANN K., 1997: A Catalogue of World *Ichneumonidae* (*Hymenoptera*). *Mem Amer. Entomol. Inst.* 58 (1), 1558 pp.
- ZEMAN V., 2000: New species from the fauna Hymenopterous (*Hymenoptera*) Czech Republic. *Acta Reginaehradecensis s. A.*, 28, pp.: 215-224.
- ZEMAN V. et VANĚK J., 1999: *Hymenoptera (Braconidae, Ichneumonidae, Eurytomidae, Pteromalidae, Mymaridae, Proctotrupidae, Diapriidae, Scelionidae, Platygasteridae, Ceraphronidae, Megaspilidae, Crabronidae)* in terrestrial traps in montane and sub-alpine zone in the Giant Mts. *Opera corcontica*, 36, pp.: 171-179.

*Došlo: 25.11.2001*