

- (Hom.: Aphididae) in Karaj. J. Entomol. Soc. Iran **20**: 25–41.
- ROGERS, D. 1972. Random search and insect population models. J. Anim. Ecol. **41**: 369–383.
- SINGH, R. & SINHA, T. B. 1982. Bionomics of *Trioxys* (*Binodoxys*) *indicus* Subba Rao & Sharma, an aphidiid parasitoid of *Aphis craccivora* Koch. 13. Host selection by the parasitoid. Z. Angew. Entomol. **93**: 64–75.
- SINGH, R. & SINHA, T. B. 1983. *Trioxys* (*Binodoxys*) *indicus* Subba Rao & Sharma as a possible biological agent in the control of *Aphis craccivora* Koch. Pronikey **4**: 245–250.
- SOLOMON, M. E. 1949. The natural control of animal populations. J. Anim. Ecol. **18**: 1–35.
- STARY, P. 1988. Aphidiidae, pp. 171–184. In: MINKS, A. K. & HAREWIJN, P. (eds), Aphids, their biology, natural enemies and control, Vol. B. Elsevier Publisher, Amsterdam.
- TALEBI, A. A., RAKHSHANI, E., SADEGHI, E. & FATHIPOUR, Y. 2002. Comparative study on fecundity, developmental time and adult longevity of walnut aphid, *Chromaphis juglandicola* (Kalt.) and its parasitoid wasp, *Trioxys pallidus* (Hal.). J. Sci. Tech. Agr. Nat. Res. **6** (3): 241–254.
- VALDIVIA, M. B. & VILLATA, C. A. 1986. Biology of the lucerne aphid *Acyrtosiphon kondoi* (Shinji) (Hemiptera: Aphididae) under controlled conditions. Revta Agron. Manfredi **2**: 35–46.
- VAN DEN BOSCH, R., SCHLINGER, E. L. & HAGEN, K. S. 1962. Initial field observation in California on *Trioxys pallidus* (Haliday), a recently introduced parasite of walnut aphid. J. Econ. Entomol. **55**: 857–862.
- VAN DEN BOSCH, R., F RAZER, B. D., DAVIS, C. S., MESSENGER, P. S. & HOM, R. 1970. *Trioxys pallidus* an effective new walnut aphid parasite from Iran. Calif. Agr. **24**: 8–10.
- WAAGE, J. K. & GREATHEAD, D. J. 1988. Biological control: challenges and opportunities. Philosoph. Trans. Roy. Soc. Lond. **318**: 28–111.

Received December 17, 2002

Accepted November 13, 2003

First records of braconids (Hymenoptera, Braconidae) from Slovakia

Janka SCHLARMANNOVÁ¹ & Jozef LUKÁŠ²

¹Department of Zoology and Anthropology, Constantin the Philosopher University, Nábřežie mládeže 91, SK-94974 Nitra, Slovakia; tel.: + 421 37 6514060, e-mail: jschlarmannova@ukf.sk

²Department of Ecology, Comenius University, Mlynská dolina B-2, SK-84215 Bratislava, Slovakia

In spite of relatively good knowledge of the braconid fauna on the territory of Slovakia (ČAPEK & LUKÁŠ, 1989) the finding of new species to this country is still possible. The investigation of little explored regions can also discover braconid species new to the fauna of Slovakia. During the last three years we recorded six braconid species which represent first records for Slovakia.

Doryctinae

Spathius polonicus Niezabitowski, 1910

Material examined: SW Slovakia, Malé Karpaty Mts, Devín env., Devínska Kobyla NNR (National Nature

Reserve) (7867 – grid reference number of the Database of the fauna of Slovakia), 10.II.2002, 2 ♂♂, 2 ♀♀, leg. J. Schlarmannová, det. J. Lukáš. Distribution: a rare species known from Poland, Armenia, Tadzhikistan, Uzbekistan (TOBIAS, 1986).

Hosts: *Lampra mirifica* Mulsant, 1855, *Melanophila decastigma* (F., 1787) (TOBIAS, 1986). In Slovakia it was bred from *Agrilus viridis* L., 1758.

Histeromerinae

Histeromerus mystacinus Wesmael, 1838

Material examined: SW Slovakia, Malé Karpaty Mts, Devín env., Devínska Kobyla NNR (7867), 10.V.2002,

3 ♀♀, leg. J. Schlarmanová, det. J. Lukáš. It belongs to category of vulnerable species in Slovakia (LUKÁŠ, 2001).

Distribution: W Europe, Crimea, Georgia (TOBIAS, 1986).

Hosts: *Leptura scutellata* F., 1781, *Strangalia aurulenta* (F., 1792), *Sinodendron cylindricum* (L., 1758), *Dicercia alni* (Fischer, 1824) (TOBIAS, 1986). In Slovakia was bred from Anobiidae.

Opiinae

Pokomandya curticornis Fischer, 1959

Material examined: SW Slovakia, Malé Karpaty Mts., Devín env., Devínska Kobyla NNR – Sandberg (7877), 9.VII.2001, 1 ♀, leg. et det. J. Schlarmanová. It belongs to category of vulnerable species in Slovakia (LUKÁŠ, 2001).

Distribution: Hungary, Turkey, Greece, Kazakhstan (TOBIAS & JAKIMOVICHUS, 1986) and Austria (FISCHER, 1972).

Hosts: unknown.

Orgilinae

Orgilus hungaricus Szépligeti, 1896

Material examined: E Slovakia, Východoslovenská rovina plain, Somotor (7596), 21.VII.2002, 1 ♀, leg. et det. J. Lukáš.

Distribution: Hungary, former Yugoslavia, Kazakhstan (TAEGER, 1989).

Hosts: unknown.

Cheloninae

Sigalphus irrorator (Fabricius, 1775)

Material examined: S Slovakia, Podunajská rovina plain, Čenkovská lesostep woodsteppe (8277), 22.VII.2001, 1 ♀, leg. et det. J. Lukáš. It belongs to category critically endangered species in Slovakia (LUKÁŠ, 2001).

Distribution: W Europe, Urals, Siberia, Far East, Japan (TOBIAS, 1986).

Hosts: *Acronicta psi* (L., 1758), *Acronicta tridens* (Denis et Schiffermüller, 1775), *Acronicta aceris* (L., 1758) *Mamestra pisi* L., 1758, *Calophasia lunula* (Hufnagel, 1766) (TOBIAS, 1986).

Euphorinae

Chrysopophthorus hungaricus (Zilahi – Kiss, 1927)

Material examined: SW Slovakia, Malé Karpaty Mts., Devín env., Devínska Kobyla NNR (7867), 22.VI.2003, 1 ♀, leg. et det. J. Lukáš. It belongs to category of vulnerable species in Slovakia (LUKÁŠ, 2001).

Distribution: C and S Europe, Azerbaidzhan (TOBIAS, 1986)

Hosts: *Chrysopa flavifrons* Brauer, 1851, *Chrysopa ventralis* Curtis, 1834, *Chrysopa carnea* Stephens, 1836 (TOBIAS, 1986).

Acknowledgements

This work was supported by the Scientific Grant Agency VEGA, project No. 1/9116/02.

References

- ČAPEK, M. & LUKÁŠ, J. 1989. Braconidae, pp. 27–44. In: ŠEDIVÝ, J. (ed.) Enumeratio insectorum Bohemoslovakiae, Check list of Czechoslovak insects III (Hymenoptera), Acta faun. ent. Mus. Nat. Pragae **19**.
- FISCHER, M. 1972. Hymenoptera, Braconidae (Opiinae I). Das Tierreich, Walter de Gruyter, Berlin, 91, XII + 620 pp., 463 Abb.
- LUKÁŠ, J. 2001. Red (Ecosozological) List of Hymenoptera of Slovakia. Ochrana Přírody **20**: 129–133.
- TAEGER, A. 1989. Die *Orgilus* – Arten der Paläarktis (Hymenoptera, Braconidae). Akademie der Landwirtschaftswissenschaften der DDR, Berlin, 260 pp.
- TOBIAS, V. I. 1986. Otryad Hymenoptera – Pereponchatokrylye, Semeistvo Braconidae, pp. 7–500. In: MEDVEDEV G. S. (ed.) Opredelitel nasekomykh Evropejskoj chasti SSSR, Vol. 3, Hymenoptera, part 4, Nauka, Leningrad.
- TOBIAS, V. I. & JAKIMOVICHUS, A. B. 1986. Otryad Hymenoptera – Pereponchatokrylye, Semeistvo Braconidae, Podsemeistvo Opiinae, pp. 7–100. In: MEDVEDEV G. S. (ed.) Opredelitel nasekomykh Evropejskoj chasti SSSR, Vol. 3, Hymenoptera, part 5, Nauka, Leningrad.

Received October 14, 2003

Accepted December 10, 2003