Published DOPLNIT, 2016

Klapalekiana, **52**: DOPLNIT, 2016
ISSN 1210-6100

New faunistic records of Trichoptera from the Czech Republic and Slovakia

Nové faunistické nálezy chrostíků (Trichoptera) z České republiky a Slovenska

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Trichoptera, Czech Republic, Bohemia, Moravia, Slovakia, faunistics, new records

Abstract. The species *Stactobia mclachlani* Kimmins, 1949 (Hydroptilidae) is recorded from the Czech Republic for the first time, while *Rhyacophila hirticornis* McLachlan, 1879 (Rhyacophilidae) is reported as a new species for Moravia. *Leptocerus interruptus* (Fabricius, 1775) (Leptoceridae) is rediscovered in the Czech Republic after fifty years. Three species, *Hydroptila simulans* Mosely, 1920 (Hydroptilidae), *Chaetopteryx major* McLachlan, 1876 (Limnephilidae), and *Adicella balcanica* Botosaneanu et Novák, 1965 (Leptoceridae), are published from the Slovak Republic with complete collecting data for the first time.

INTRODUCTION

The recent checklist of the Czech caddisflies includes 252 species (Chvojka & Komzák 2008). Further species were discovered subsequently (Chvojka et al. 2009, Komzák & Kroča 2011) and the total number of species for the Czech Republic stands at 258 (243 and 224 for Bohemia and Moravia, respectively) now. The most recent data on the Slovak caddisfly fauna were summarized by Lukáš & Chvojka (2011). Together with species added by Oláh et al. (2015), 229 species are now known from Slovakia.

The aim of this contribution is to present new records of caddisfly species from both the Czech Republic and Slovakia.

MATERIAL AND METHODS

Adults were collected by sweeping riparian vegetation, or using a light trap situated near a river. *Stactobia* larvae were collected individually from hygropetric habitats. Voucher specimens are preserved in 75% alcohol and deposited in the authors′ collections (see below).

Locality data for each examined species are quoted together with grid mapping codes (in parentheses) which follow Pruner & Míka (1996) for the Czech Republic and Lučivjanská (1989) for Slovakia.

Abbreviations used throughout the text:

DFS – Databank of the Slovak fauna; NP – National Park; PLA – Protected Landscape Area;
mer. – southern; occ. – western; or. – eastern; sept. – northern;

JLBS – collection of Jozef Lukáš, Bratislava, Slovakia;
JSBC – collection of Jan Špaček, Blešno, Czech Republic;
NMPC – collection of the National Museum, Prague, Czech Republic;
PKBC – collection of Petr Komzák, Brno, Czech Republic.

RESULTS AND DISCUSSION

Rhyacophilidae

Rhyacophila hirticornis McLachlan, 1879
Material examined. Czech Republic, Moravia mer., Podyjí NP, Vranov nad Dyjí, springbrook below spring "Pod slujemi" (7161), 48°53′16″N, 15°50′39″E, 350 m a.s.l., 5.vi.2011, P. Komzák leg. et det., 1 ♂ 2 ♀♀ (PKBC).

This eucrenal and hypocrenal species is widely distributed in the Alps and also occurs in adjacent regions and the western Balkans (Graf et al. 2008). Rare species in the Czech Republic, until now known only from southern Bohemia (the Šumava Mts., e.g. Novák 1996, Obr 1984), new species for Moravia.

Hydroptilidae

Stactobia mclachlani Kimmins, 1949
Material examined. Czech Republic, Bohemia sept., Krkonoše (Giant) Mts. NP, Labský důl valley below Labská bouda chalet (5259), 50°46′11″N, 15°32′59″E, 1,210 m a.s.l., 21.ix.2012, J. Špaček leg. et det., 9 larvae (JSBC); 21.vi.2014, J. Špaček leg. et det., 10 ♂♂, 8 ♀♀ (JSBC, NMPC); 29.ix.2015, J. Špaček leg. et det., 23 larvae (JSBC).

This species is known from southern Europe from Portugal to Greece and also from Central Anatolia, but its distribution is still insufficiently known (Graf et al. 2008, Malicky 2005a, Sipahiler 2005). New species for the Czech Republic – this record from northern Bohemia represents the northernmost occurrence of the species.

Hydroptila simulans Mosely, 1920
Material examined. Slovakia occ., Strážovské vrchy Mts., Valaská Belá-Klin env., Nitrica River below confluence with Jasenina (7176 DFS), 48°52′22″N, 18°27′26″E, 380 m a.s.l., 25.vi.2015, P. Chvojka leg. et det., 12 ♂♂ (JLBS, NMPC).

Species widely distributed in Europe and Turkey (Graf et al. 2008, Malicky 2005a, Sipahiler 2005). Krno (2001) indicated the possibility of its occurrence in Slovakia and Waringer & Graf (2006) mentioned this species from Austria from the March (Morava) River south of Angern an der March, on the border with Slovakia. First record from the Slovak Carpathians.

Limnephilidae

Chaetopteryx major McLachlan, 1876
Material examined. Slovakia occ., Strážovské vrchy PLA, Strážovský potok brook below waterfall (7076 DFS), 48°57′48″N, 18°28′08″E, 700–800 m a.s.l., 4.xi.2012, P. Chvojka et J. Lukáš leg., P. Chvojka det., 1 ♀ (NMPC); Slovakia occ., Strážovské vrchy PLA, left tributary of Stredniansky potok brook (7076 DFS), 48°57′06″N, 18°22′50″E, 470 m a.s.l., 5.xi.2012, P. Chvojka leg. et det., 1 ♀ (NMPC).

Distributed in the central part of Europe from France to Romania (Graf et al. 2008). Krno (2001) also listed this species from Slovakia, however, without specific locality. We here present the first documented occurrence in Slovakia.

Leptoceridae

Adicella balcanica Botosaneanu et Novák, 1965
Material examined. Slovakia occ., Strážovské vrchy Mts., Valaská Belá-Klin env., Nitrica River below confluence with Jasenina (7176 DFS), 48°52′22″N, 18°27′26″E, 380 m a.s.l., 15.vi.2012, P. Chvojka et J. Lukáš leg., P. Chvojka det., 1 ♂ (NMPC).

This species is known from the Balkan Peninsula (Graf et al. 2008, Oláh & Kovács 2013), only single records have been published from western Hungary (Nógrádi 1988) and northeastern Italy (Malicky 2005b).

We collected a single male of *A. balcanica* in western Slovakia by sweeping along Nitrica River in June 2012, but this species was not subsequently confirmed there by either sweeping or light trapping (July 2012, June 2015).

Leptocerus interruptus (Fabricius, 1775)
Material examined. Czech Republic, Bohemia or., Orlice River near Nepasice (5761), 50°12′17″N, 15°56′53″E, 235 m a.s.l., 14.iv.2009, J. Špaček leg. et det., 2 ♂♂ (JSBC).

Widely distributed in Europe (excluding Portugal and the northern part of Europe) and in Turkey (Malicky 2005a). There are only old records from the Czech Republic (K. Novák, unpublished, Obr 1969), species rediscovered in Bohemia after fifty years.

ACKNOWLEDGEMENTS. This research was partly supported by the project of the Ministry of Culture of the Czech Republic (DKRVO 2015/13, National Museum, 00023272) to P. Chvojka and by VEGA (Scientific Grant Agency of the Ministry of the Education and the Slovak Academy of Sciences), grant number 1/0176/12 to J. Lukáš. We greatly appreciate all the corrections made by J. Zajacová, that improved this manuscript.

REFERENCES

CHVOJKA P. & KOMZÁK P. 2008: The history and present state of Trichoptera research in the Czech Republic. *Ferrantia, Travaux Scientifiques du Musée National d'Histoire Naturelle de Luxembourg* **55**: 11–21.

CHVOJKA P., KOMZÁK P. & ŠPAČEK J. 2009: New faunistic records of Trichoptera (Insecta) from the Czech Republic, III. *Acta Musei Moraviae, Scientiae Biologicae* (Brno) **94**: 81–85.

GRAF W., MURPHY J., DAHL J., ZAMORA-MUNOZ C. & LÓPEZ-RODRÍGUEZ M. J. 2008: *Trichoptera. Distribution and ecological preferences of European freshwater organisms, volume 1*. Pensoft Publishers, Sofia-Moscow, 388 pp.

KOMZÁK P. & KROČA J. 2011: New faunistic records of Trichoptera (Insecta) from the Czech Republic, IV. *Acta Musei Moraviae, Scientiae Biologicae* (Brno) **96**: 189–192.

KRNO I. 2001: Zoznam druhov Ephemeroptera, Plecoptera a Trichoptera známych z územia Slovenska. [List of Ephemeroptera, Plecoptera and Trichoptera species known from Slovakia]. In: STLOUKAL E.: Databanka fauny Slovenska – stav a nové prírastky databáz DFS v roku 2001. [Databank of the Slovak fauna – situation and new additions the DFS database in 2001]. *Folia Faunistica Slovaca* **6**: 157–168 (in Slovak).

LUČIVJANSKÁ V. 1989: Lokality. [Localities]. Pp. 8–126. In: ČEPELÁK J. (ed.): *Diptera Slovenska, III*. [*Slovak Diptera, III*]. Veda, Bratislava, 192 pp. (in Slovak).

LUKÁŠ J. & CHVOJKA P. 2011: New faunistic records of Trichoptera from Slovakia. *Klapalekiana* **47**: 115–117.

MALICKY H. 2005a: Die Köcherfliegen Griechenlands (Trichoptera). *Denisia* **17**: 1–240.

MALICKY H. 2005b: Regionale Neufunde und sonstige faunistisch bemerkenswerte Funde von Köcherfliegen aus Italien (Insecta, Trichoptera). *Gortania* **26** (2004): 243–259.

NÓGRÁDI S. 1988: New data to the caddisfly (Trichoptera) fauna of Hungary, II. *Folia Entomologica Hungarica* **49**: 205–210.
NOVÁK K. 1996: Fauna Trichopter Šumavy. (Die Trichopterenfauna im Böhmerwald). *Sborník Jihočeského Muzea v Českých Budějovicích*, *Přírodní Vědy* **36**: 51–61 (in Czech, German summary).
OBR S. 1969: Zur Kenntnis der Köcherfliegen (Trichoptera) der Tschechoslowakei I. Neue and wenig bekannte Trichoptera Mährens. *Folia Facultatis Scientiarum Naturalium Universitatis Purkynianae Brunensis* **10** (8), *Biologia* **25**: 67–76.
OBR S. 1984: Chrostíci (Trichoptera) ulovení na světlo v Československu. (Trichoptera captured by light traps in Czechoslovakia). *Práce z oboru botaniky a zoologie* (Brno) **1980-1983**: 77–92 (in Czech, English abstract).
OLÁH J., CHVOJKA P., COPPA G., GODUNKO R. J., LODOVICI O., MAJECKA K., MAJECKI J., SZCZĘSNY B., URBANIC G. & VALLE M. 2015: Limnephilid taxa revised by speciation traits: Rhadicoleptus, Isogamus, Melampophylax genera, Chaetopteryx rugulosa, Psilopteryx psorosa species groups, Drusus bolivari, Annitella kosciuszkii species complexes (Trichoptera: Limnephilidae). *Opuscula Zoologica Budapest* **46**: 3–117.
OLÁH J. & KOVÁCS T. 2013: New species and records of Balkan Trichoptera II. *Folia Historico Naturalia Musei Matraensis* **37**: 109–121.
PRUNER L. & MÍKA P. 1996: Seznam obcí a jejich částí v České republice s čísly mapových polí pro síťové mapování fauny. (List of settlements in the Czech Republic with associated map field codes for faunistic grid mapping system). *Klapalekiana* **32 (Supplementum)**: 1–115 (in Czech, English summary).
SIPAHILER F. 2005: A checklist of the caddisflies of Turkey (Trichoptera). Pp. 393–405. In: TANIDA K. & ROSSITER A. (eds): *Proceedings of the 11th International Symposium on Trichoptera*. Tokai University Press, Kanagawa, 474 pp.
WARINGER J & GRAF W. 2006: Light-trapping of Trichoptera at the March, a lowland river in Eastern Austria. *Archiv für Hydrobiologie* **Supplementband 158**, *Large Rivers* **16**: 351–372.

SOUHRN

Z České republiky bylo dosud známo 258 druhů chrostíků (243 z Čech a 224 z Moravy), ze Slovenska bylo známo 229 druhů.

Druh *Stactobia mclachlani* Kimmins, 1949 (Hydroptilidae) nalezený v Krkonoších je novým druhem pro faunu ČR. *Rhyacophila hirticornis* McLachlan, 1879 (Rhyacophilidae), dosud známá pouze ze Šumavy, byla nově objevena v NP Podyjí. Z Čech je dále prezentován nález *Leptocerus interruptus* (Fabricius, 1775) (Leptoceridae), tento druh nebyl v ČR sbírán 50 let.

Pro faunu Slovenska uvádíme nové nálezy druhů *Hydroptila simulans* Mosely, 1920 (Hydroptilidae), *Chaetopteryx major* McLachlan, 1876 (Limnephilidae) a *Adicella balcanica* Botosaneanu et Novák, 1965 (Leptoceridae) ze Strážovských vrchů.