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New and interesting records of Plecoptera (Insecta) from the Czech Republic

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BOJKOVÁ J. & ŠPAČEK J. 2006: New and interesting records of Plecoptera (Insecta) from the Czech Republic. *Acta Musei Moraviae, Scientiae biologicae* (Brno) **91:** 1–6. – *Nemoura carpathica* Illies, *Nemoura fusca* Kis, *Protonemura aestiva* Kis, and *Leuctra quadrimaculata* Kis are reported from the Czech Republic for the first time. *Arcynopteryx compacta* (McLachlan), *Isoperla buresi* Raušer, *Agnetina elegantula* (Klapálek), *Isoptena serricornis* (Pictet), *Brachyptera braueri* (Klapálek), and *Leuctra geniculata* (Stephens), critically endangered species in the Czech Republic, are also recorded. New records of *Isoperla tripartita* Illies and *Isoperla goertzi* Illies, rare species in the Czech Republic, are added as well.

Key words. Plecoptera, faunology, Czech Republic, new records

Introduction

This paper summarises important finds of stoneflies from the Czech Republic, recorded in the course of recent years. In the course of investigation of spring areas around the Moravian-Slovak borderlands, we found several species whose distribution ranges reach the Czech Republic from Slovakia; these species are either recorded for the first time for the Czech Republic or they are considered as rare or solitary species in the Czech Republic. The other records represent rare and sensitive species found mostly in Bohemia, which are classified as critically endangered species in the Red list of threatened species in the Czech Republic (HELEŠIC *et al.* 2006).

Results [1, 2)]

Family Perlodidae

Arcynopteryx compacta (McLachlan, 1872)

Material. Bohemia or.: the Bílé Labe river, Luční bouda (5260), 6.ix.2004, 3L, J. Špaček leg. det. et coll.

[1)] L = larva.

[2)] In the material section, localities are supplemented by a code number (in parantheses), which refers to the map field of the Central European grid for mapping flora and fauna (EHRENDORFER & HAMANN 1965, adapted by NOVÁK 1989 and PRUNER & MÍKA 1996).

Remarks. A boreo-alpine Holarctic species (Kis 1974), in the Czech Republic considered as critically endangered (Helešic *et al.* 2006).

Isoperla buresi Raušer, 1962

Material. Moravia bor.: the Kopytná potok brook, Košařiska (7471), 9.vi.2006, 2 ♂, J. Bojková leg. det. et coll.

Remarks. A montane and submontane species known from the Carpathians: Slovakia (Krno 2003), Poland (Nowacka 1965), Ukraine, Romania, (Kis 1974, Miron 1964), and from the Balkans: Bulgaria (Braasch & Joost 1971), Macedonia (Ikonomov 1980), Bosnia, and Herzegovina (Sivec 1980). In the Czech Republic it is a critically endangered species (Helešic *et al.* 2006).

Isoperla goertzi Illies, 1952

Material. Moravia mer.: unnamed spring-fed brook in the Hrubý Mechnáč, Lopeník (7072), 5.vii.2005, 1 ♂, 18. vi. 2006, 6 ♂, J. Bojková leg. det. et coll.; the Svinárský potok brook north of Velká Javořina Mt. (7072), 27.vii.2005, 3 ♂, P. Chvojka, J. Ježek et J. Macek leg., J. Bojková det. et coll.; the Velička river above Hubertova bouda, Vápenky (7171), 7.vi.2005, 1 ♂, P. Chvojka leg., J. Špaček det. et coll.; a spring area alongside left tributary of the Velička river near Hubertova bouda 2 km northwest of Velká Javořina Mt. (7171) 7.vi.2005, 1 ♂, P. Chvojka, J. Ježek et J. Macek leg., Špaček det. et coll.; Moravia or.: unnamed spring-fed brook in PR Bílé potoky, Valašské Klobouky (6874), 16.iv.2006, J. Bojková leg., det. et coll.

Remarks. A Central European species widespread mainly in Germany (e.g. Braasch 1968, Joost 1967, Müller-Liebenau 1961, Werner & Werner 1968); in the Czech Republic found only in Šumava Mts. (Winkler 1956, Křelinová 1962). New species for Moravia.

Isoperla tripartita Illies, 1954

Material. Moravia mer.: the Velička river above Hubertova bouda, Vápenky (7171), 28.vi.2005, 2 ♂; the Kazivec potok brook southeast of Suchov (7071), 2.viii.2004, 2 ♂; the Rybnický potok brook south of Javorník (7171), 6.vi.2005, 2 ♂, all P. Chvojka leg., J. Špaček det. et coll.; the Svinárský potok brook north of Velká Javořina Mt. (7072), 7.vi.2005, 1 ♂, P. Chvojka, J. Ježek et J. Macek leg., J. Špaček det. et coll.; unnamed spring-fed brook in the Hrubý Mechnáč, Lopeník (7072), 5.vii.2005, 2 ♂, J. Bojková leg. det. et coll.; the Járkovec brook southeast of Čertoryje (7170), 11.vii.2006, 2 ♂; the Radějovka brook, NPR Čertoryje (7170), 11.vii.2006, 1 ♂; the Vrbečka brook southwest of Čertoryje (7170), 20.vi.2006, 1 ♂; the Mandát potok brook south of Radějov (7170), 19.vi.2006, 1 ♂, all P. Chvojka leg., J. Bojková det. et coll.; the Žlebský potok brook south of Podmolí (7161), 14.vi.2006, 1 ♂; the Klaperův potok brook south of Čížov (7161), 14.vi.2006, 1 ♂, all J. Bojková leg. det. et coll.; the Gránický potok brook, Znojmo (7162), 12.vii.2005, 1 ♂, P. Řezníčková leg, J. Bojková det. et coll.; Moravia or.: unnamed spring-fed brook northeast of Poteč (6874), 11.vi.2005, 1 ♂; an unnamed spring-fed southeast of Nedašov – Na Salaši (6874), 10.vi.2005, 1 ♂; the Hrušovka brook below Kaňoury, northeast of Nedašov (6874), 10.vi.2005, 3 ♂, all P. Chvojka leg., J. Špaček det. et coll.

Remarks. A Central European and Balkan species (Kis 1974).

Family Perlidae

Agnetina elegantula (Klapálek, 1905)

Material. Bohemia or.: the Orlice river, Blešno (5761), 28.vii.1996, 3L; Bohemia bor., the Ploučnice river, Heřmaničky (5353), 2.v.2002, 1L; the Ploučnice river, Žizníkov (5353), 8.viii.2002, 7L, 2.v.2003, 1L, 7.v.2004, 12L, 21.vii.2006, 3L; Bohemia mer.: the Lužnice river, Majdalena (7055), 30.ix.2000, 2L; the Dračice river, Františkov (7155), 13.vi.2003, 1L, all J. Špaček leg. det. et coll.

Remarks. This species has been reported from Czechoslovakia and Germany (ZWICK 1984), Poland (KITTEL & WOJTAS 1988), Austria (GRAF 1997), Slovakia (KRNO 2003) and Hungary (KOVÁCS & AMBRUS 2001); in the Czech Republic it is considered critically endangered (HELEŠIC *et al.* 2006).

Family Chloroperlidae

Isoptena serricornis (Pictet, 1881)

Material. Bohemia bor.: the Ploučnice river, Heřmaničky (5353), 2.v.2003, 5L, 26.x.2004, 1L, J. Špaček leg. det. et coll.

Remarks. The species occurs in Western Europe and Scandinavia (ILLIES 1953), Poland (KITTEL & WOJTAS 1988), Slovakia (KRNO 2003), the Czech Republic (SOLDÁN *et al.* 1998) and Romania (KIS 1970). In the Czech Republic it is a critically endangered species (HELEŠIC *et al.* 2006).

Family Taeniopterygidae

Brachyptera braueri (Klapálek, 1900)

Material. Bohemia c.: the Berounka river, Radotín (6052), 22.iii.2003, 2L, 5.xii.2005, 4L, J. Špaček leg. det. et coll.; the Berounka river, Zvíkovec (6048), 4.iii.2004, 1 ♂, 4L, V. Koza et J. Špaček leg., J. Špaček det. et coll.

Remarks. This species is widely distributed in Europe (KITTEL & WOJTAS 1988, ZHILTZOVA 2003, KIS 1974, GRAF 1999). In the Czech Republic it is a critically endangered species (HELEŠIC *et al.* 2006).

Family Nemouridae

Nemoura carpathica Illies, 1963

Material. Moravia bor.: the Kyčmol brook, Horní Lomná – Kyčmol (6477), 27.iv.2004, 1 ♂, J. Bojková leg. et coll., J. Helešic det.; unnamed spring-fed brook west of Horní Lomná – Hrušky (6477), 29.iv.2005, 13 ♂;

the Mionší brook about 1 km from the spring, Dolní Lomná (6478), 7.v.2005, 3 ♂; the Jestřábský potok brook, Dolní Lomná – Dolínky (6478), 13.v.2005, 1 ♂, all J. Bojková leg. det. et coll.; Moravia mer.: the Svinárský potok brook north of Velká Javořina Mt. (7072), 19.v.2005, 3 ♂, 29.vi.2005, 2 ♂, 27.vii.2005, 2 ♂; the Velička river, under the spring (7171), 28.iv.–7.vi.2005, 3 ♂; a spring area alongside left tributary of the Velička river near Hubertova bouda 2 km northwest of Velká Javořina Mt. (7171), 28.vi.2005, 1 ♂, 25.vii.2005, 1 ♂, all P. Chvojka, J. Ježek et J. Macek leg., J. Špaček det. et coll.

Remarks. A Carpathian species known from Slovakia (Krno 2004), Poland (Kittel & Fiałkowski 2002), Ukraine and Romania (Kis 1974, Zhiltzova 2003). New species for the Czech Republic.

Nemoura fusca Kis, 1963

Material. Moravia bor.: the Lomná river, Horní Lomná – Kyčmol (6477), 13.v.2005, 1 ♂; unnamed spring-fed brook west of Horní Lomná – Hrušky (6477), 29.iv.2005, 3 ♂, all J. Bojková leg. det. et coll.; Moravia mer.: the Svinárský potok brook north of Velká Javořina Mt. (7072), 29.vi.2005, 1 ♂; 27.vii.2005, 4 ♂; the Velička river, below the spring (7171), 28.iv.–7.vi.2005, 4 ♂; the Velička river above Hubertova bouda, Vápenky (7171), 19.v.2005, 4 ♂, 7.vi.2005, 27 ♂, 28.vi.2005, 2 ♂, 25.vii.2005, 4 ♂, 29.viii.2005, 1 ♂, all P. Chvojka, J. Ježek et J. Macek leg., J. Špaček det. et coll.

Remarks. A Carpathian species reported from Slovakia (Krno 2004), Poland (Kittel & Fiałkowski 2002), Ukraine and Romania (Kis 1964, Zhiltzova 2003). New species for the Czech Republic.

Protonemura aestiva Kis, 1965

Material. Bohemia or.: Biskupská cesta, Uhřínov (5764), 2.xi.1995, 1 ♂, J. Hájek et al. leg., J. Špaček det. et coll.; Moravia occ.: the Sklenský potok brook, Světnov (6361), 1.vi.2005, 1 ♂, M. Straka leg., J. Bojková det. et coll.; Moravia bor., the Mionší brook about 1 km from the spring, Dolní Lomná (6478), 10.ix.2004, 2 ♂, 12.vii.2005, 1 ♂, 31.viii.2005, 2 ♂, J. Bojková leg. det. et coll.; Moravia or.: unnamed spring-fed brook in PR Bílé potoky, Valašské Klobouky (6874), 16.iv.2005, 1 ♂, 5.vi.–25.vi.2006, 17 ♂, J. Bojková leg., det. et coll.; Moravia mer., unnamed spring-fed brook in the Hrubý Mechnáč, Lopeník (7072), 5.vii.2005, 1 ♂, 3.vii.–19.vii.2006, 2 ♂, J. Bojková leg. det. et coll.; the Svinárský potok brook north of Velká Javořina Mt. (7072), 29.vi.2005, 1 ♂, 27.vii.2005, 5 ♂, 29.viii.2005, 1 ♂; a spring area alongside left tributary of the Velička river near Hubertova bouda 2 km northwest of Velká Javořina Mt. (7171), 3.viii.2004, 1 ♂, 7.vi.2005, 2 ♂, 25.vii.2005, 2 ♂, 29.viii.2005, 2 ♂, all P. Chvojka, J. Ježek et J. Macek leg., J. Špaček det. et coll.; the Velička river above Hubertova bouda, Vápenky (7171), 3.viii.2004, 2 ♂, 7.vi.2005, 1 ♂, P. Chvojka leg., J. Špaček det. et coll.

Remarks. This species is known from Slovakia (Krno 2004), Poland (Fiałkowski 2000), Ukraine, Romania and Hungary (Kis 1974, Zhiltzova 2003). It has never been reported outside the Carpathian Mountain system, but our findings from Žďárské vrchy and Orlické hory indicate that this species apparently reaches the eastern part of Hercynian Mountain system. New species for the Czech Republic.

Family Leuctridae

Leuctra geniculata (Stephens, 1836)

Material. Bohemia bor.: the Labe river, Děčín (5251), 21.vii.2006, 3L, V. Koza, V. Horálek, J. Špaček leg., J. Špaček det. et coll.; the Labe river, Hřensko – Schmilka, right bank (5151), 2.viii.2006, V. Koza leg., J. Špaček det. et coll.

Remarks. The species occurs in western and Central Europe and North Africa (Illies 1955, Müller-Liebenau 1961, Kis 1974, Sartori & Ruffieux 1996). In the Czech Republic it is a critically endangered species (Helešic *et al.* 2006).

Leuctra quadrimaculata Kis, 1963

Material. Moravia or.: the Hrušovka brook below Kaňoury northeast of Nedašov (6874), 10.vi.2005, 11 ♂, P. Chvojka leg., J. Špaček det. et coll.

Remarks. The species occurs in Central Europe (Graf 1999, Fiałkowski 2000, Krno 2004), Romania, Bulgaria (Braasch & Joost 1971, Kis 1974) and the former Yugoslavia (Sivec 1980). New species for the Czech Republic.

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