

Contribution to the aquatic macroinvertebrate fauna of the Eger-patak (Eger stream) in Northern Hungary

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ABSTRACT: During the quantitative sampling of the Eger-patak in 2014 altogether 99 taxa were identified which belong to 10 higher taxonomical groups: Bivalvia: 2, Coleoptera: 15, Crustacea: 6, Diptera: 7, Ephemeroptera: 11, Gastropoda: 15, Heteroptera: 2, Hirudinea: 4, Odonata: 9, Trichoptera: 28, among which 45 aquatic macroinvertebrate taxa were new to the fauna of the stream.

Introduction

Eger-patak is the main watercourse of the Eger–Laskó–Csincse water system in Northern Hungary. The spring of the Eger-patak is near Balaton village, and after flowing across the Hevesi-sík (Hevesi plain) and the Borsodi-mezőség it finally falls into the Kiskörei-víz-tározó (Kisköre Reservoir). According to the Water Basin Management Plan (ANONIM 2008) the Eger-patak belongs to the Bükk and Borsodi-mezőség subunit as a strongly modified watercourse.

Several authors published records of the macroinvertebrate fauna of the Eger-patak (ANDRIKOVICS & KISS 1999, FICSÓR 2011, 2013, 2014, 2015, JUHÁSZ et al. 2006a,b,c, KISS et al. 2006a,b, KOVÁCS 2006, 2009, KOVÁCS & MERKL 2005, KÖDÖBÖCZ et al. 2006, MILINKI & MURÁNYI 1999, MÓRA et al. 2006, MÜLLER et al. 2006, SZEPESI & HARKA 2011, TÓTH 2001, VARGA 2001). However, the majority of these papers did not report data exclusively from the Eger-patak but from several watercourses simultaneously.

The main objective of the present study was to detect the macroinvertebrate communities in the Eger-patak based on a quantitative survey with a great number of sampling sites which were not included in any of the previously published studies. In this paper only the faunistical data of this investigation is presented.

Materials and methods

The Eger-patak was sampled on 10th May and 30th October in 2014. The 15 sampling sites were located between the settlements of Almár and Nagytálya (Table 1).

The sampling was carried out based on the multi habitat sampling protocol with 20 sampling units where the “kick and sweep” method was used with a pond net (mesh size: 0.5-1 mm). The samples were collected by A. Csercsa and are available at the MTA Centre for Ecological Research Department of Tisza River Research (H-4026 Debrecen, Bem tér 18/c). In the laboratory the samples were sorted and kept in 70% ethanol.

The identification of the collected specimens were accomplished with stereomicroscope using the following keys: ASKEW 1988, BAUERNFEIND & HUMPSCH 2001, CHAM 2009, CSABAI 2000, CSABAI et al. 2002, EISELER 2005, GERKEN & STERNBERG 1999, GLÖER & MEIER-BROOK 2003, HAYBACH 1999, KLONOWSKA-OLEJNIK 2004, KONTSCHÁN et al. 2002, NESEMANN 1997, RICHNOVSZKY & PINTÉR 1979, SAVAGE 1989, WARINGER & GRAF 1997. The species

of the different taxa were identified by specialists: M. Ficsór (Hirudinea, Trichoptera); G. Várbíró (Mollusca, Odonata, Diptera); E. Á. Krasznai (Malacostraca, Coleoptera) and A. Csercsa (Ephemeroptera).

We identified the young and damaged individuals to the genus or family-level and the Diptera larvae to the family-level. The nomenclature follows BODA et al. (2015), B.-MUSKÓ (2007), CSABAI (2009), GLÖER (2002), GLÖER & MEIER-BROOK (2003), KOVÁCS & BAUERNFEIND (2003), NÓGRÁDI & UHERKOVICS (2002), NEUBERT & NESEMANN (1999), VAJDA & DÉVAI (2015). Those species which are new to the fauna of the Eger-patak are indicated with an asterisk (*).

Table 1. Sampling sites in the Eger-patak with their codes, the names of the sampling sites and the exact geographical coordinates

| Code | Sampling site | Latitude (N) | Longitude (E) |
|---------|--------------------------|--------------|---------------|
| EGR-001 | Almár (Eger) | 47°57'24.1" | 20°21'21.6" |
| EGR-002 | Felnémet (Eger) | 47°56'19.7" | 20°21'57.0" |
| EGR-003 | Eger | 47°55'31.7" | 20°22'02.1" |
| EGR-004 | Eger | 47°55'19.9" | 20°21'59.5" |
| EGR-005 | Eger | 47°54'58.2" | 20°22'09.4" |
| EGR-006 | Eger | 47°54'30.0" | 20°22'28.8" |
| EGR-007 | Eger | 47°53'54.3" | 20°22'50.6" |
| EGR-008 | Eger | 47°53'51.1" | 20°22'54.3" |
| EGR-009 | Eger | 47°53'49.2" | 20°22'54.6" |
| EGR-010 | Eger | 47°53'45.1" | 20°22'58.2" |
| EGR-011 | Eger | 47°53'37.9" | 20°23'03.7" |
| EGR-012 | Eger | 47°53'18.5" | 20°23'34.2" |
| EGR-013 | Kistálya (Andornaktálya) | 47°51'51.9" | 20°24'03.1" |
| EGR-014 | Andornaktálya | 47°51'14.6" | 20°24'18.0" |
| EGR-015 | Nagytálya | 47°49'18.7" | 20°24'50.5" |

New records

HIRUDINEA

GLOSSIPHONIIDAE Vaillant, 1890

Glossiphonia complanata (Linnaeus, 1758) – **EGR-004**, 30.10.2014 (1).

ERPOBDELLIDAE Blanchard, 1894

Erpobdella octoculata (Linnaeus, 1758) – **EGR-001**, 10.05.2014 (4); **EGR-003**, 30.10.2014 (3); **EGR-004**, 10.05.2014 (2); **EGR-005**, 10.05.2014 (1), 30.10.2014 (2); **EGR-006**, 10.05.2014 (2); **EGR-007**, 30.10.2014 (1); **EGR-013**, 30.10.2014 (4); **EGR-014**, 30.10.2014 (4).

Erpobdella vilnensis (Liskiewicz 1925) – **EGR-001**, 10.05.2014 (6), 30.10.2014 (1); **EGR-002**, 30.10.2014 (6); **EGR-003**, 10.05.2014 (2), 30.10.2014 (8); **EGR-004**, 10.05.2014 (5), 30.10.2014 (8); **EGR-005**, 10.05.2014 (11), 30.10.2014 (16); **EGR-006**, 10.05.2014 (3), 30.10.2014 (3); **EGR-013**, 30.10.2014 (1); **EGR-014**, 10.05.2014 (1).

Erpobdella sp. – **EGR-001**, 10.05.2014 (1); **EGR-004**, 10.05.2014 (2), 30.10.2014 (10); **EGR-005**, 10.05.2014 (2), 30.10.2014 (2); **EGR-011**, 30.10.2014 (1).

MOLLUSCA

BIVALVIA

SPHAERIIDAE Deshayes, 1855 (1820)

Pisidium casertanum (Poli, 1791) – **EGR-011**, 10.05.2014 (2).

Pisidium sp. – **EGR-002**, 10.05.2014 (1); **EGR-003**, 10.05.2014 (1); **EGR-004**, 30.10.2014 (1); **EGR-006**, 10.05.2014 (1); **EGR-008**, 10.05.2014 (2); **EGR-009**, 10.05.2014 (15); **EGR-011**, 30.10.2014 (3); **EGR-012**, 30.10.2014 (1).

GASTROPODA

BITHYNIIDAE Troschel, 1857

Bithynia tentaculata (Linnaeus, 1758) – **EGR-013** 30.10.2014 (1).

HYDROBIIDAE Troschel, 1857

Potamopyrgus antipodarum (J. E. Gray, 1843) – **EGR-001**, 30.10.2014 (1); **EGR-002**, 10.05.2014 (4), 30.10.2014 (2); **EGR-003**, 10.05.2014 (151), 30.10.2014 (10); **EGR-004**, 10.05.2014 (47), 30.10.2014 (46); **EGR-005**, 10.05.2014 (75), 30.10.2014 (48); **EGR-006**, 10.05.2014 (31), 30.10.2014 (12); **EGR-007**, 10.05.2014 (2); **EGR-008**, 30.10.2014 (1); **EGR-009**, 30.10.2014 (9); **EGR-010**, 30.10.2014 (7); **EGR-011**, 10.05.2014 (7), 30.10.2014 (3); **EGR-012**, 30.10.2014 (1); **EGR-013**, 30.10.2014 (2); **EGR-014**, 10.05.2014 (10), 30.10.2014 (14); **EGR-015**, 10.05.2014 (3904), 30.10.2014 (492).

VALVATIDAE J. E. Gray, 1840

Borysthenia naticina (Menke, 1845)* – **EGR-001**, 10.05.2014 (1); **EGR-002**, 10.05.2014 (1); **EGR-004**, 30.10.2014 (1); **EGR-009**, 10.05.2014 (2).

Valvata macrostoma Morch 1864* – **EGR-011**, 10.05.2014 (3).

LYMNAEIDAE Rafinesque, 1815

Galba truncatula (O. F. Müller, 1774) – **EGR-001**, 30.10.2014 (1); **EGR-002**, 30.10.2014 (1); **EGR-003**, 10.05.2014 (15), 30.10.2014 (41); **EGR-004**, 10.05.2014 (21), 30.10.2014 (3); **EGR-005**, 30.10.2014 (8); **EGR-006**, 10.05.2014 (216), 30.10.2014 (24); **EGR-007**, 10.05.2014 (1), 30.10.2014 (11); **EGR-008**, 30.10.2014 (13); **EGR-009**, 30.10.2014 (9); **EGR-010**, 30.10.2014 (35); **EGR-011**, 10.05.2014 (2), 30.10.2014 (9); **EGR-013**, 10.05.2014 (1), 30.10.2014 (1); **EGR-015**, 10.05.2014 (15616), 30.10.2014 (1974).

Omphiscola glabra (O. F. Müller, 1774)* – **EGR-001**, 30.10.2014 (1); **EGR-002**, 10.05.2014 (2), 30.10.2014 (1); **EGR-003**, 10.05.2014 (2), 30.10.2014 (1).

Radix balthica (Linnaeus, 1758)* – **EGR-010**, 10.05.2014 (3).

Stagnicola fuscus (C. Pfeiffer, 1821)* – **EGR-003**, 30.10.2014 (1); **EGR-012**, 30.10.2014 (1); **EGR-013** 30.10.2014 (1).

Stagnicola palustris (O. F. Müller, 1774)* – **EGR-007**, 30.10.2014 (1).

PHYSIDAE Fitzinger, 1833

Haitia acuta (Draparnaud, 1805) – **EGR-004**, 30.10.2014 (6); **EGR-005**, 30.10.2014 (2); **EGR-006**, 10.05.2014 (3), 30.10.2014 (1); **EGR-007**, 10.05.2014 (16); **EGR-008**, 10.05.2014 (1); **EGR-009**, 10.05.2014 (4), 30.10.2014 (7); **EGR-010**, 10.05.2014 (6), 30.10.2014 (1); **EGR-011**, 10.05.2014 (2), 30.10.2014 (2); **EGR-012**, 30.10.2014 (8); **EGR-013**, 10.05.2014 (6), 30.10.2014 (1); **EGR-014**, 30.10.2014 (3).

PLANORBIDAE Rafinesque, 1815

- Anisus spirorbis* (Linnaeus, 1758)* – **EGR-002**, 10.05.2014 (1).
Gyraulus albus (O. F. Müller, 1774)* – **EGR-008**, 30.10.2014 (1); **EGR-013**, 30.10.2014 (1).
Menetus dilatatus (A. A. Gould, 1841)* – **EGR-001**, 30.10.2014 (1).
Planorbis planorbis (Linnaeus, 1758)* – **EGR-003**, 10.05.2014 (1).

THIARIDAE Troschel, 1857

- Melanoides tuberculatus* (O. F. Müller, 1774) – **EGR-001**, 10.05.2014 (1); **EGR-003**, 10.05.2014 (1), 30.10.2014 (1); **EGR-006**, 30.10.2014 (1); **EGR-007**, 10.05.2014 (2); **EGR-008**, 10.05.2014 (4), 30.10.2014 (5); **EGR-009**, 30.10.2014 (2); **EGR-010**, 10.05.2014 (1), 30.10.2014 (2); **EGR-011**, 30.10.2014 (1); **EGR-012**, 10.05.2014 (1); **EGR-014**, 30.10.2014 (1).

MALACOSTRACA

GAMMARIDAE Leach, 1813

- Dikerogammarus haemobaphes* (Eichwald, 1841)* – **EGR-007**, 30.10.2014 (1).
Gammarus balcanicus Schäferna, 1922 – **EGR-001**, 10.05.2014 (101), 30.10.2014 (43); **EGR-002**, 10.05.2014 (99), 30.10.2014 (396); **EGR-003**, 10.05.2014 (2), 30.10.2014 (96); **EGR-004**, 10.05.2014 (87), 30.10.2014 (594); **EGR-005**, 10.05.2014 (128), 30.10.2014 (109); **EGR-006**, 30.10.2014 (56); **EGR-007**, 10.05.2014 (14), 30.10.2014 (48); **EGR-008**, 30.10.2014 (4); **EGR-009**, 30.10.2014 (1); **EGR-010**, 30.10.2014 (1); **EGR-012**, 30.10.2014 (1).
Gammarus fossarum Koch, 1835 – **EGR-001**, 10.05.2014 (36), 30.10.2014 (72); **EGR-002**, 10.05.2014 (111), 30.10.2014 (164); **EGR-003**, 10.05.2014 (29), 30.10.2014 (142); **EGR-004**, 10.05.2014 (73), 30.10.2014 (398); **EGR-005**, 10.05.2014 (12), 30.10.2014 (138); **EGR-006**, 10.05.2014 (138), 30.10.2014 (57); **EGR-007**, 10.05.2014 (35), 30.10.2014 (65); **EGR-008**, 10.05.2014 (19), 30.10.2014 (51); **EGR-009**, 10.05.2014 (1), 30.10.2014 (25); **EGR-010**, 30.10.2014 (2); **EGR-012**, 10.05.2014 (1); **EGR-014**, 30.10.2014 (2).
Gammarus roesellii Gervais, 1835 – **EGR-001**, 10.05.2014 (201), 30.10.2014 (52); **EGR-002**, 10.05.2014 (213), 30.10.2014 (120); **EGR-003**, 10.05.2014 (808), 30.10.2014 (2155); **EGR-004**, 10.05.2014 (1034), 30.10.2014 (646); **EGR-005**, 10.05.2014 (401), 30.10.2014 (127); **EGR-006**, 10.05.2014 (266), 30.10.2014 (227); **EGR-007**, 10.05.2014 (168), 30.10.2014 (42); **EGR-008**, 10.05.2014 (151), 30.10.2014 (124); **EGR-009**, 10.05.2014 (91), 30.10.2014 (147); **EGR-010**, 30.10.2014 (13); **EGR-011**, 30.10.2014 (5); **EGR-012**, 30.10.2014 (5); **EGR-013**, 10.05.2014 (322), 30.10.2014 (815); **EGR-014**, 10.05.2014 (3030), 30.10.2014 (1382); **EGR-015**, 10.05.2014 (1249), 30.10.2014 (733).
Gammarus sp. – **EGR-001**, 10.05.2014 (476), 30.10.2014 (25); **EGR-002**, 10.05.2014 (419), 30.10.2014 (467); **EGR-003**, 10.05.2014 (63), 30.10.2014 (628); **EGR-004**, 10.05.2014 (277), 30.10.2014 (334); **EGR-005**, 10.05.2014 (191), 30.10.2014 (165); **EGR-006**, 30.10.2014 (52); **EGR-007**, 10.05.2014 (44), 30.10.2014 (17); **EGR-008**, 10.05.2014 (16), 30.10.2014 (10); **EGR-009**, 10.05.2014 (19), 30.10.2014 (8); **EGR-010**, 30.10.2014 (1); **EGR-012**, 10.05.2014 (1); **EGR-014**, 10.05.2014 (4); **EGR-015**, 10.05.2014 (1).

ASELLIDAE Latreille, 1803

- Asellus aquaticus* (Linnaeus, 1758) – **EGR-001**, 10.05.2014 (1), 30.10.2014 (1); **EGR-002**, 30.10.2014 (1); **EGR-003**, 10.05.2014 (1), 30.10.2014 (14); **EGR-004**, 10.05.2014 (6), 30.10.2014 (21); **EGR-006**, 30.10.2014 (1); **EGR-007**, 10.05.2014 (2); **EGR-008**, 10.05.2014 (2), 30.10.2014 (1); **EGR-009**, 10.05.2014 (31), 30.10.2014 (3); **EGR-010**, 10.05.2014 (7), 30.10.2014 (4); **EGR-011**, 10.05.2014 (2), 30.10.2014 (2); **EGR-012**, 30.10.2014 (5); **EGR-013**, 10.05.2014 (4), 30.10.2014 (12); **EGR-014**, 10.05.2014 (5), 30.10.2014 (23).

EPHEMEROPTERA

BAETIDAE Leach, 1815

- Baetis buceratus* Eaton, 1870 – **EGR-014**, 10.05.2014 (1); **EGR-015**, 10.05.2014 (1), 30.10.2014 (2).
Baetis pentaplebedes Ujhelyi, 1966* – **EGR-001**, 10.05.2014 (1); **EGR-002**, 10.05.2014 (3); **EGR-005**, 30.10.2014 (1); **EGR-007**, 10.05.2014 (2); **EGR-015**, 10.05.2014 (1).
Baetis rhodani (Pictet, 1843) – **EGR-001**, 10.05.2014 (6), 30.10.2014 (1); **EGR-002**, 10.05.2014 (10), 30.10.2014 (1); **EGR-003**, 30.10.2014 (1); **EGR-004**, 10.05.2014 (1), 30.10.2014 (4); **EGR-005**, 10.05.2014 (9); **EGR-007**, 10.05.2014 (44), 30.10.2014 (3); **EGR-015**, 30.10.2014 (4).
Baetis vernus Curtis, 1834 – **EGR-001**, 30.10.2014 (1); **EGR-002**, 10.05.2014 (3); **EGR-004**, 10.05.2014 (2); **EGR-006**, 10.05.2014 (1), 30.10.2014 (4); **EGR-007**, 10.05.2014 (14); **EGR-015**, 10.05.2014 (1).
Baetis sp. – **EGR-001**, 10.05.2014 (3); **EGR-002**, 10.05.2014 (7); **EGR-004**, 10.05.2014 (1); **EGR-006**, 10.05.2014 (1), 30.10.2014 (2); **EGR-007**, 10.05.2014 (1); **EGR-008**, 10.05.2014 (1); **EGR-015**, 10.05.2014 (1).

HEPTAGENIIDAE Needham, 1901

- Rhithrogena carpatoalpina* Klonowska, Olechowska, Sartori & Weichselbaumer, 1987* – **EGR-001**, 30.10.2014 (2); **EGR-002**, 10.05.2014 (1), 30.10.2014 (1).
Rhithrogena semicolorata species-group* – **EGR-001**, 30.10.2014 (117); **EGR-002**, 10.05.2014 (1), 30.10.2014 (39).
Rhithrogena sp. – **EGR-001**, 10.05.2014 (5).

EPHEMERIDAE Latreille, 1810

- Ephemera danica* Müller, 1764 – **EGR-001**, 10.05.2014 (127), 30.10.2014 (70); **EGR-002**, 10.05.2014 (12), 30.10.2014 (34); **EGR-003**, 10.05.2014 (6), 30.10.2014 (9); **EGR-004**, 10.05.2014 (3), 30.10.2014 (9); **EGR-005**, 10.05.2014 (57); **EGR-006**, 10.05.2014 (1); **EGR-008**, 30.10.2014 (1); **EGR-013**, 30.10.2014 (1).

POTAMANTHIDAE Albarda, 1888

- Potamanthus luteus* (Linnaeus, 1767)* – **EGR-014**, 30.10.2014 (1); **EGR-015**, 10.05.2014 (1).

EPHEMERELLIDAE Klapálek, 1909

- Ephemerella ignita* (Poda, 1761) – **EGR-002**, 10.05.2014 (47), 30.10.2014 (4); **EGR-003**, 10.05.2014 (2), 30.10.2014 (3); **EGR-004**, 10.05.2014 (10), 30.10.2014 (1); **EGR-005**, 10.05.2014 (2); **EGR-007**, 10.05.2014 (15); **EGR-008**, 10.05.2014 (1); **EGR-015**, 10.05.2014 (2).

ODONATA

CALOPTERYGIDAE Selys, 1850

- Calopteryx splendens* (Harris, 1782) – **EGR-001**, 30.10.2014 (1); **EGR-003**, 30.10.2014 (17); **EGR-004**, 10.05.2014 (1), 30.10.2014 (2); **EGR-006**, 30.10.2014 (1); **EGR-008**, 30.10.2014 (1); **EGR-009**, 30.10.2014 (2); **EGR-010**, 10.05.2014 (2), 30.10.2014 (4); **EGR-011**, 10.05.2014 (1); **EGR-012**, 10.05.2014 (7), 30.10.2014 (2); **EGR-013**, 10.05.2014 (11), 30.10.2014 (1); **EGR-014**, 10.05.2014 (2), 30.10.2014 (1); **EGR-015**, 30.10.2014 (3).

PLATYCNEMIDIDAE Tillyard, 1917

- Platycnemis pennipes* (Pallas, 1771)* – **EGR-003**, 30.10.2014 (3); **EGR-008**, 10.05.2014 (1); **EGR-009**, 30.10.2014 (4); **EGR-010**, 10.05.2014 (1); **EGR-011**, 10.05.2014 (2); **EGR-012**, 10.05.2014 (11), 30.10.2014 (7); **EGR-013**, 10.05.2014 (7), 30.10.2014 (13); **EGR-014**, 10.05.2014 (1), 30.10.2014 (3).

COENAGRIONIDAE Kennedy, 1920

Ischnura elegans (Vander Linden, 1820)* – **EGR-011**, 10.05.2014 (1).

GOMPHIDAE Rambur, 1842

Gomphus flavipes (Charpentier, 1825)* – **EGR-003**, 30.10.2014 (2); **EGR-009**, 30.10.2014 (1); **EGR-011**, 10.05.2014 (1); **EGR-014**, 30.10.2014 (3).

Gomphus vulgatissimus (Linnaeus 1758)* – **EGR-010**, 30.10.2014 (1); **EGR-013**, 10.05.2014 (2); **EGR-015**, 30.10.2014 (1).

Onychogomphus forcipatus (Linnaeus, 1758) – **EGR-001**, 10.05.2014 (1); **EGR-002**, 10.05.2014 (2), 30.10.2014 (4); **EGR-003**, 30.10.2014 (1); **EGR-004**, 30.10.2014 (2); **EGR-005**, 10.05.2014 (2), 30.10.2014 (1); **EGR-007**, 10.05.2014 (1); **EGR-008**, 10.05.2014 (1), 30.10.2014 (4); **EGR-009**, 10.05.2014 (1), 30.10.2014 (5); **EGR-010**, 30.10.2014 (3); **EGR-011**, 10.05.2014 (1), 30.10.2014 (7); **EGR-012**, 10.05.2014 (8), 30.10.2014 (16); **EGR-013**, 10.05.2014 (1), 30.10.2014 (1); **EGR-014**, 10.05.2014 (11), 30.10.2014 (6); **EGR-015**, 30.10.2014 (91).

LIBELLULIDAE Rambur, 1842

Orthetrum brunneum (Fonscolombe, 1837)* – **EGR-004**, 30.10.2014 (2); **EGR-009**, 30.10.2014 (1).

Orthetrum cancellatum (Linnaeus, 1758)* – **EGR-006**, 10.05.2014 (2); **EGR-009**, 10.05.2014 (1).

Orthetrum sp. – **EGR-014**, 10.05.2014 (1).

HETEROPTERA

NEPIDAE Latreille, 1802

Nepa cinerea Linnaeus, 1758 – **EGR-001**, 10.05.2014 (1); **EGR-004**, 30.10.2014 (1); **EGR-008**, 10.05.2014 (1).

CORIXIDAE Leach, 1815

Sigara striata (Linnaeus, 1758) – **EGR-014**, 30.10.2014 (1).

COLEOPTERA

HALIPLIDAE Brullé, 1835

Haliplus fluviatilis Aubé, 1836* – **EGR-005**, 10.05.2014 (1).

Peltodytes caesus (Duftschmid, 1805)* – **EGR-004**, 10.05.2014 (1).

DYTISCIDAE Leach, 1815

Graptodytes granularis (Linnaeus, 1767)* – **EGR-007**, 10.05.2014 (1).

Platambus maculatus (Linnaeus, 1758)* – **EGR-001**, 10.05.2014 (1); **EGR-002**, 10.05.2014 (1); **EGR-003**, 30.10.2014 (1).

HELOPHORIDAE Thomson, 1859

Helophorus redtenbacheri Kuwert, 1885* – **EGR-003**, 10.05.2014 (1).

HYDROPHILIDAE Latreille, 1802

Laccobius minutus (Linnaeus, 1758) – **EGR-003**, 10.05.2014 (1).

HYDRAENIDAE Mulsant, 1844

Hydraena cf. palustris Erichson, 1837* – **EGR-005**, 30.10.2014 (2).

Hydraena gracilis Germar, 1824* – **EGR-003**, 30.10.2014 (1); **EGR-004**, 10.05.2014 (1); **EGR-005**, 10.05.2014 (1).

ELMIDAE Westwood, 1838

Elmis maugetii Latreille, 1798 – **EGR-002**, 10.05.2014 (12), 30.10.2014 (2); **EGR-003**, 10.05.2014 (4), 30.10.2014 (5); **EGR-004**, 10.05.2014 (10), 30.10.2014 (8); **EGR-005**, 10.05.2014 (22), 30.10.2014 (7); **EGR-006**, 10.05.2014 (1); **EGR-007**, 10.05.2014 (1).

Elmis sp. – **EGR-001**, 10.05.2014 (1); **EGR-002**, 10.05.2014 (158), 30.10.2014 (28); **EGR-003**, 10.05.2014 (79), 30.10.2014 (29); **EGR-004**, 10.05.2014 (231), 30.10.2014 (52); **EGR-005**, 10.05.2014 (508), 30.10.2014 (47); **EGR-006**, 10.05.2014 (3), 30.10.2014 (4); **EGR-007**, 10.05.2014 (7); **EGR-009**, 10.05.2014 (1); **EGR-010**, 30.10.2014 (1); **EGR-015**, 10.05.2014 (1), 30.10.2014 (10).

Limnius volckmari (Panzer, 1793)* – **EGR-004**, 30.10.2014 (1); **EGR-005**, 10.05.2014 (2).

Limnius sp. – **EGR-001**, 30.10.2014 (1); **EGR-002**, 10.05.2014 (2); **EGR-003**, 30.10.2014 (5); **EGR-004**, 30.10.2014 (3); **EGR-005**, 10.05.2014 (9); **EGR-006**, 30.10.2014 (1); **EGR-011**, 30.10.2014 (1).

Macronychus quadrituberculatus Müller, 1806* – **EGR-003**, 10.05.2014 (1).

Riolus sp. – **EGR-005**, 30.10.2014 (1).

DRYOPIDAE Fleming, 1821

Pomatinus substriatus (P. J. W. Müller, 1806) – **EGR-002**, 10.05.2014 (1); **EGR-004**, 30.10.2014 (1); **EGR-015**, 30.10.2014 (1).

TRICHOPTERA

RHYACOPHILIDAE Stephens, 1836

Rhyacophila fasciata Hagen, 1859 – **EGR-002**, 30.10.2014 (3); **EGR-004**, 10.05.2014 (1); **EGR-005**, 10.05.2014 (23), 30.10.2014 (2).

Rhyacophila vulgaris Pictet, 1834* – **EGR-002**, 10.05.2014 (1).

Rhyacophila sp. – **EGR-002**, 10.05.2014 (1); **EGR-005**, 10.05.2014 (2); **EGR-008**, 30.10.2014 (1).

HYDROPSYCHIDAE Curtis, 1825

Hydropsyche angustipennis (Curtis, 1834) – **EGR-004**, 10.05.2014 (1), 30.10.2014 (1); **EGR-005**, 30.10.2014 (2); **EGR-007**, 30.10.2014 (2); **EGR-014**, 10.05.2014 (3), 30.10.2014 (6); **EGR-015**, 10.05.2014 (1), 30.10.2014 (2).

Hydropsyche fulvipes Curtis, 1834* – **EGR-001**, 10.05.2014 (4), 30.10.2014 (2); **EGR-002**, 30.10.2014 (1); **EGR-003**, 30.10.2014 (1).

Hydropsyche bulbifera McLachlan, 1878 – **EGR-001**, 30.10.2014 (1); **EGR-004**, 30.10.2014 (1); **EGR-005**, 10.05.2014 (1), 30.10.2014 (2); **EGR-006**, 30.10.2014 (53); **EGR-007**, 10.05.2014 (1), 30.10.2014 (74); **EGR-008**, 30.10.2014 (21); **EGR-009**, 30.10.2014 (3); **EGR-010**, 30.10.2014 (6); **EGR-011**, 10.05.2014 (3), 30.10.2014 (12); **EGR-012**, 10.05.2014 (4), 30.10.2014 (95); **EGR-013**, 30.10.2014 (2); **EGR-014**, 10.05.2014 (9), 30.10.2014 (168); **EGR-015**, 10.05.2014 (21), 30.10.2014 (75).

Hydropsyche instabilis (Curtis, 1834) – **EGR-001**, 10.05.2014 (3); **EGR-002**, 30.10.2014 (3); **EGR-005**, 10.05.2014 (3).

Hydropsyche modesta Navàs, 1925 – **EGR-007**, 10.05.2014 (1); **EGR-010**, 30.10.2014 (2); **EGR-012**, 30.10.2014 (8); **EGR-013**, 30.10.2014 (1); **EGR-014**, 30.10.2014 (19); **EGR-015**, 30.10.2014 (168).

Hydropsyche saxonica McLachlan, 1884 – **EGR-003**, 30.10.2014 (1); **EGR-004**, 30.10.2014 (2); **EGR-005**, 10.05.2014 (1), 30.10.2014 (4).

Hydropsyche sp. – **EGR-001**, 30.10.2014 (9); **EGR-002**, 10.05.2014 (2), 30.10.2014 (5); **EGR-003**, 30.10.2014 (2); **EGR-004**, 30.10.2014 (6); **EGR-005**, 10.05.2014 (3), 30.10.2014 (3); **EGR-006**, 30.10.2014 (11); **EGR-007**, 10.05.2014 (1), 30.10.2014 (11); **EGR-008**, 30.10.2014 (4); **EGR-009**, 10.05.2014 (2), 30.10.2014 (2); **EGR-010**, 30.10.2014 (2); **EGR-011**, 10.05.2014 (3), 30.10.2014 (4); **EGR-012**, 10.05.2014 (1), 30.10.2014 (12); **EGR-013**, 30.10.2014 (1); **EGR-014**, 10.05.2014 (23), 30.10.2014 (9); **EGR-015**, 10.05.2014 (43), 30.10.2014 (38).

HYDROPTILIDAE Stephens, 1836

Hydroptila sp. – **EGR-005**, 10.05.2014 (32), 30.10.2014 (1); **EGR-006**, 30.10.2014 (2).

Hydroptilidae Gen. sp. – **EGR-005**, 30.10.2014 (6).

PSYCHOMYIIDAE Walker, 1852

Psychomyia pusilla (Fabricius, 1781)* – **EGR-010**, 30.10.2014 (1); **EGR-015**, 30.10.2014 (12).

LIMNEPHILIDAE Kolenati, 1848

Anabolia furcate Brauer, 1857 – **EGR-004**, 10.05.2014 (2).

Annitella obscurata (McLachlan, 1876)* – **EGR-001**, 10.05.2014 (6); **EGR-002**, 10.05.2014 (3), 30.10.2014 (1).

Chaetopteryx fusca Brauer, 1857* – **EGR-001**, 10.05.2014 (1), 30.10.2014 (11); **EGR-003**, 10.05.2014 (1).

Halesus digitatus (von Paula Schrank, 1781) – **EGR-001**, 10.05.2014 (1).

Halesus tessellatus (Rambur, 1842) – **EGR-001**, 10.05.2014 (2).

Limnephilidae Gen. sp. – **EGR-001**, 10.05.2014 (8), 30.10.2014 (26); **EGR-002**, 10.05.2014 (1); ger: Lidl, 10.05.2014 (1); **EGR-004**, 30.10.2014 (2); **EGR-005**, 10.05.2014 (1); **EGR-012**, 10.05.2014 (1).

Limnephilus lunatus Curtis, 1834* – **EGR-005**, 10.05.2014 (1).

Limnephilus sp. – **EGR-002**, 10.05.2014 (1).

Potamophylax rotundipennis (Brauer, 1857) – **EGR-001**, 10.05.2014 (4).

GOERIDAE Ulmer, 1903

Goera pilosa (Fabricius, 1775)* – **EGR-002**, 10.05.2014 (1), 30.10.2014 (1); **EGR-003**, 10.05.2014 (2), 30.10.2014 (1); **EGR-004**, 10.05.2014 (13), 30.10.2014 (1); **EGR-005**, 30.10.2014 (4).

Goeridae Gen. sp. – **EGR-003**, 10.05.2014 (1); **EGR-004**, 10.05.2014 (1); **EGR-005**, 10.05.2014 (2), 30.10.2014 (2).

Silo pallipes (Fabricius, 1781) – **EGR-001**, 30.10.2014 (3); **EGR-004**, 30.10.2014 (2); **EGR-005**, 30.10.2014 (2).

LEPTOCERIDAE Leach, 1815

Athripsodes bilineatus (Linnaeus, 1758)* – **EGR-002**, 10.05.2014 (1); **EGR-005**, 10.05.2014 (1); **EGR-006**, 10.05.2014 (1).

Athripsodes cinereus (Curtis 1834)* – **EGR-005**, 30.10.2014 (1); **EGR-006**, 10.05.2014 (1).

Athripsodes sp. – **EGR-006**, 10.05.2014 (1).

DIPTERA

ATHERICIDAE Stuckenberg, 1973

Athericidae Gen. sp.* – **EGR-001**, 10.05.2014 (17); **EGR-004**, 10.05.2014 (1); **EGR-007**, 10.05.2014 (18); **EGR-009**, 10.05.2014 (3); **EGR-010**, 30.10.2014 (1).

CHIRONOMIDAE Newman, 1834

Chironomidae Gen. sp. – **EGR-002**, 10.05.2014 (1); **EGR-003**, 10.05.2014 (1); **EGR-005**, 10.05.2014 (3); **EGR-006**, 30.10.2014 (1); **EGR-007**, 10.05.2014 (13), 30.10.2014 (3); **EGR-008**, 10.05.2014 (47), 30.10.2014 (3); **EGR-009**, 10.05.2014 (71), 30.10.2014 (3); **EGR-010**, 10.05.2014 (31), 30.10.2014 (51); **EGR-011**, 10.05.2014 (22), 30.10.2014 (6); **EGR-012**, 10.05.2014 (3), 30.10.2014 (24); **EGR-013**, 10.05.2014 (59), 30.10.2014 (129); **EGR-014**, 10.05.2014 (109), 30.10.2014 (51); **EGR-015**, 10.05.2014 (30), 30.10.2014 (1).

LIMONIIDAE Latreille, 1802

Limoniidae Gen. sp.* – **EGR-002**, 30.10.2014 (1); **EGR-005**, 10.05.2014 (23), 30.10.2014 (6); **EGR-006**, 10.05.2014 (8), 30.10.2014 (8); **EGR-007**, 10.05.2014 (1), 30.10.2014 (4); **EGR-008**, 10.05.2014 (7), 30.10.2014 (3); **EGR-009**, 10.05.2014 (5), 30.10.2014 (1); **EGR-010**, 30.10.2014 (2); **EGR-11**, **EGR-011**, 30.10.2014 (3); **EGR-012**, 10.05.2014 (1), 30.10.2014 (5).

SIMULIIDAE Newman, 1834

Simuliidae Gen. sp.* – **EGR-002**, 10.05.2014 (1); **EGR-007**, 10.05.2014 (76), 30.10.2014 (8); **EGR-009**, 10.05.2014 (1); **EGR-11**, **EGR-011**, 10.05.2014 (2), 30.10.2014 (2); **EGR-012**, 30.10.2014 (19); **EGR-014**, 10.05.2014 (3); **EGR-015**, 30.10.2014 (13).

STRATIOMYIDAE Latreille, 1802

Stratiomyidae Gen. sp.* – **EGR-002**, 10.05.2014 (4); **EGR-005**, 30.10.2014 (1); **EGR-007**, 30.10.2014 (1); **EGR-11**, **EGR-011**, 10.05.2014 (1).

TABANIDAE Latreille, 1802

Tabanidae Gen. sp.* – **EGR-002**, 10.05.2014 (6), 30.10.2014 (3); **EGR-003**, 10.05.2014 (1), 30.10.2014 (4); **EGR-004**, 10.05.2014 (1), 30.10.2014 (10); **EGR-005**, 10.05.2014 (4), 30.10.2014 (3); **EGR-006**, 10.05.2014 (2), 30.10.2014 (5); **EGR-007**, 30.10.2014 (1); **EGR-008**, 30.10.2014 (2); **EGR-009**, 10.05.2014 (2); **EGR-010**, 10.05.2014 (2); **EGR-012**, 30.10.2014 (1).

TIPULIDAE Latreille, 1802

Tipulidae Gen. sp.* – **EGR-004**, 30.10.2014 (1); **EGR-005**, 10.05.2014 (2); **EGR-006**, 30.10.2014 (1); **EGR-007**, 30.10.2014 (1); **EGR-008**, 30.10.2014 (1); **EGR-009**, 10.05.2014 (2); **EGR-010**, 10.05.2014 (1); **EGR-11**, **EGR-011**, 10.05.2014 (2), 30.10.2014 (5); **EGR-012**, 30.10.2014 (2); **EGR-014**, 10.05.2014 (1), 30.10.2014 (1); **EGR-015**, 30.10.2014 (1).

Results

During the investigation we collected 48,881 individuals belonging to 99 taxa from which 74 were identified to the species level and classified into 10 higher taxonomical groups: Bivalvia: 2, Coleoptera: 15, Crustacea: 6, Diptera: 7, Ephemeroptera: 11, Gastropoda: 15, Heteroptera: 2, Hirudinea: 4, Odonata: 9, Trichoptera: 28. During the sampling 4 protected species were identified: *Gomphus flavipes*, *G. vulgatissimus*, *Onychogomphus forcipatus* and *Orthetrum brunneum*.

Altogether, 99 species and 2 taxa were published previously from the Eger-patak. From the taxa that we identified 45 (38 species and 7 taxa) were new to the fauna of the water-course.

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