

CONTRIBUTIONS TO THE KNOWLEDGE OF THE MICROCRUSTACEAN FAUNA (CRUSTACEA: CLADOCERA AND COPEPODA) OF SALAJ COUNTY, ROMANIA

László Forró*, Katalin Kovács

Department of Zoology, Hungarian Natural History Museum

ABSTRACT: The Cladocera and Copepoda fauna of the county Sălaj (Romania) were studied in the frame of a cooperation between the Hungarian Natural History Museum and the Vasile Goldiș Western University (Arad) during 2014-2015. Various ponds and pools were sampled and 40 species recorded.

Keywords: faunistics, Cladocera, Copepoda, Salaj county, Romania

INTRODUCTION:

Vasile Goldiș University (Arad) and the Hungarian Natural History Museum (Budapest) organised a joint project to conduct a faunistical exploration of the invertebrate fauna of Sălaj county, during which microcrustaceans were also collected in 2014 and 2015.

Three identification keys on the Cladocera (Negrea, 1983) and Copepoda (Damian-Georgescu, 1963, 1966) were published on the Romanian fauna which provided only little or no information about the fauna of Salaj county. Battaes et al. (2014) studied the microcrustaceans of several peat wetlands, including the marsh at Mlaștina de la Iaz. They recorded 10 species, 6 Cladocera and 4 Copepoda.

The samplings included all kinds of small water bodies, ponds, puddles and marshes, partly temporary waters with particular reference to protected areas. Altogether 51 samples were taken, 22 Cladocera and 18 Copepoda species were detected.

MATERIAL AND METHODS

During 2014-2015 ten sampling trips were organized between April and October in each year in the framework of the collaboration of the Vasile Goldiș University and the Hungarian Natural History Museum.

The zooplankton samples were taken with a plankton net of 100 μ mesh size by wading into the water. The collected material was preserved in formol in the field. After sorting and identification they are stored in 75% ethanol and deposited in the Crustacea collection of the Hungarian Natural History Museum.

For the identification Damian-Georgescu (1963, 1966), Einsle (1993), Flössner (1972, 2000) and Negrea (1983) were used. Gubányi (this volume) compiled a complete list of collecting localities and collectors of the specimens, the numbers in the species list below refer to the sequential numbers in Gubányi (this volume).

LIST OF SPECIES:

CLADOCERA:

Daphnia obtusa Kurz, 1874

Localities: **99:** Munții Meseșului (Meszes-hegység), Treznea (Ördögkút), main valley of the Treznea Stream, 29.09.2014, N47.11005° E23.06443°, leg. Zs. Bálint, L. Dányi, G. Katona & D. Murányi; **101:** Munții Meseșului (Meszes-hegység), Treznea (Ördögkút), main valley of the Treznea Stream,

Correspondence*: László Forró, Hungarian Natural History Museum, Department of Zoology, H-1088 Budapest, Baross u. 13, Hungary, tel.: +36-1-267-7100, email: forro@nhmus.hu
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30.09.2014, N47.10676° E23.08086°, leg. Zs. Bálint, L. Dányi, G. Katona & D. Murányi; **121:** Munții Plopiș (Réz-hegység), Tusa (Tuszatelke), Ponor, 02.10.2014, N47.0193° E22.69965°, leg. Zs. Bálint, L. Dányi, G. Katona & D. Murányi;

Daphnia curvirostris Eylman, 1887

Localities: **12:** Dealurile Crasnei (Krasznamenti-dombság), Vârșolț (Varsolc), near Vârșolț Reservoir, 23.04.2014, N47.17822° E22.89021°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **14:** Munții Plopiș (Réz-hegység), Iaz (Krasznajáz), Mlaștina de la Iaz, marsh, 24.04.2014, N47.11065° E22.66125°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **18:** Munții Plopiș (Réz-hegység), Tusa (Tuszatelke), Barcău (Berettyó) springs, 24.04.2014, N47.02035° E22.74876°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **131:** Dealurile Crasnei (Krasznamenti-dombság), Balta Cehei, 1.5km NNW of Cehei (Somlyócsehi), Wedge of bog w/ reeds and open water near road, 27.04.2015, N47.26868° E22.75489°, 180m, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **136:** Dealurile Crasnei (Krasznamenti-dombság), Balta Cehei, 1.3km NW of Cehei (Somlyócsehi), bank of small artificial pool at canal from E edge of bog, 27.04.2015, N47.26766° E22.75747°, 180m, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **202:** Munții Plopiș (Réz-hegység), Iaz (Krasznajáz), Mlaștina de la Iaz, marsh, 13.05.2015, N47.11° E22.659°, leg. A. Grabant, O. Merkl, A. Podlussányi, V. Szőke;

Daphnia pulex Leydig, 1860

Localities: **1:** Dealurile Crasnei (Krasznamenti-dombság), 1.5km NNW of Cehei (Somlyócsehi), Balta Cehei, 22.04.2014, N47.26897° E22.75423°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **3:** Munții Meseșului (Meszes-hegység), Huta (Csákyújfalu), puddle, 23.04.2014, N47.00755° E22.94665°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **4:** Munții Meseșului (Meszes-hegység), Huta (Csákyújfalu), beech forest, 23.04.2014, N46.9942° E22.92844°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **8:** Munții Meseșului (Meszes-hegység), Poic, Satul Hurez (Bagolyfalu), tyre track, 23.04.2014, N46.97255° E22.94902°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **147:** Dealurile Crasnei (Krasznamenti-dombság), Vârșolț, near Vârșolț Reservoir, willows, reed bed, 28.04.2015, N47.17847° E22.88972°, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **156:** Dealurile Gârboului (Csáki-gorbói-dombság), Goruna Mare, 1km

SE of Cliț (Csúrfalva), streambed in Valea Corbului, streamside, 29.04.2015, N47.28375° E23.43996°, 220m, leg. A. Gubányi, Cs. Kutasi & Gy.Makranczy; **213**: Munții Plopiș (Réz-hegység), Tusa (Tuszatelke), Ponor Plateau, spruce forest with a pond, 28.05.2015, N47.019721° E22.699143°, 800m, leg. Zs. Bálint, A. Gubányi & G.Katona;

Daphnia cucullata Sars, 1863

Localities: **253**: Dealurile Crasnei (Krasznamenti-dombság), Vârșolț (Varsolc), Vârșolț Reservoir, waterside in waterworks territory, 17.07.2015, N47.1931° E22.9069°, 239m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas;

Simocephalus exspinosus (Koch, 1841)

Localities: **1**: Dealurile Crasnei (Krasznamenti-dombság), 1.5km NNW of Cehei (Somlyócsehi), Balta Cehei, 22.04.2014, N47.26897° E22.75423°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **14**: Munții Plopiș (Réz-hegység), Iaz (Krasznajáz), Mlaștina de la Iaz 1, marsh, 24.04.2014, N47.11065° E22.66125°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **87**: Depresiunea Almaș-Agrij (Almás-Egregy-medence), between Băbiu (Bábony) and Almașu (Váralmás), shore of Băbiu Stream, 13.08.2014, N46.954° E23.099°, leg. A. Gubányi, G. Katona, A.Orosz & G. Puskás; **147**: Dealurile Crasnei (Krasznamenti-dombság), Vârșolț, near Vârșolț Reservoir, willows, reed bed, 28.04.2015, N47.17847° E22.88972°, leg. A. Gubányi, Cs. Kutasi & Gy.Makranczy; **156**: Dealurile Gârboului (Csákgorboi-dombság), Goruna Mare, 1km SE of Cliț (Csúrfalva), streambed in Valea Corbului, streamside, 29.04.2015, N47.28375° E23.43996°, 220m, leg. A. Gubányi, Cs. Kutasi & Gy.Makranczy; **173**: Culoarul Someșului (Szamos völgye), Cliț (Csúrfalva), small forest pond, 11.05.2015, N47.283907° E23.43903°, leg. A. Grabant, O. Merkl, A.Podlussány, V. Szőke; **174**: Culoarul Someșului (Szamos völgye), Cliț (Csúrfalva), small forest pond, 11.05.2015, N47.286288° E23.435738°, leg. A. Grabant, O. Merkl, A.Podlussány, V. Szőke; **202**: Munții Plopiș (Réz-hegység), Iaz (Krasznajáz), Mlaștina de la Iaz, marsh, 13.05.2015, N47.11° E22.659°, leg. A. Grabant, O. Merkl, A.Podlussány, V. Szőke;

Ceriodaphnia reticulata (Jurine, 1820)

Localities: **14**: Munții Plopiș (Réz-hegység), Iaz (Krasznajáz), Mlaștina de la Iaz 1, marsh, 24.04.2014, N47.11065° E22.66125°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **173**: Culoarul Someșului (Szamos völgye), Cliț (Csúrfalva), small forest pond, 11.05.2015, N47.283907° E23.43903°, leg. A. Grabant, O. Merkl, A.Podlussány, V. Szőke; **174**: Culoarul Someșului (Szamos völgye), Cliț (Csúrfalva), small forest pond, 11.05.2015, N47.286288° E23.435738°, leg. A. Grabant, O. Merkl, A.Podlussány, V. Szőke; **202**: Munții Plopiș (Réz-hegység), Iaz (Krasznajáz), Mlaștina de la Iaz, marsh, 13.05.2015, N47.11° E22.659°, leg. A. Grabant, O. Merkl, A.Podlussány, V. Szőke;

Ceriodaphnia laticaudata P. E. Müller, 1867

Localities: **14**: Munții Plopiș (Réz-hegység), Iaz (Krasznajáz), Mlaștina de la Iaz 1, marsh, 24.04.2014, N47.11065° E22.66125°, leg. L. Forró, A.

Gubányi, G., Katona & Cs. Kutasi; **147**: Dealurile Crasnei (Krasznamenti-dombság), Vârșolț, near Vârșolț Reservoir, willows, reed bed, 28.04.2015, N47.17847° E22.88972°, leg. A. Gubányi, Cs. Kutasi & Gy.Makranczy; **202**: Munții Plopiș (Réz-hegység), Iaz (Krasznajáz), Mlaștina de la Iaz, marsh, 13.05.2015, N47.11° E22.659°, leg. A. Grabant, O. Merkl, A.Podlussány, V. Szőke;

Scapholeberis mucronata (O. F. Müller, 1785)

Localities: **253**: Dealurile Crasnei (Krasznamenti-dombság), Vârșolț (Varsolc), Vârșolț Reservoir, waterside in waterworks territory, 17.07.2015, N47.1931° E22.9069°, 239m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas; **254**: Dealurile Crasnei (Krasznamenti-dombság), Crasna (Kraszna), Crasna (Kraszna) bridge, 17.07.2015, N47.162° E22.8762°, 247m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas;

Scapholeberis rammneri Dumont & Pensaert, 1983

Locality: **253**: Dealurile Crasnei (Krasznamenti-dombság), Vârșolț (Varsolc), Vârșolț Reservoir, waterside in waterworks territory, 17.07.2015, N47.1931° E22.9069°, 239m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas;

Scapholeberis sp. juv.

Locality: **89**: Depresiunea Almaș-Agrij (Almás-Egregy-medence), Baica (Bányika), Băcuța Stream, 13.08.2014, N47.073° E23.269°, leg. A. Gubányi, G. Katona, A.Orosz & G. Puskás;

Megafenestra aurita (Fischer, 1849)

Locality: **1**: Dealurile Crasnei (Krasznamenti-dombság), 1.5km NNW of Cehei (Somlyócsehi), Balta Cehei, 22.04.2014, N47.26897° E22.75423°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi;

Moina brachiata (Jurine, 1820)

Localities: **8**: Munții Meseșului (Meszes-hegység), Poic, Satul Hurez (Bagolyfalú), tyre track, 23.04.2014, N46.97255° E22.94902°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **81**: Munții Meseșului (Meszes-hegység), Pria (Perje), W of Vf. Măgura Priei (Perjei csúcs), 12.08.2014, N47.004° E22.882°, leg. A. Gubányi, G. Katona, A.Orosz & G. Puskás; **87**: Depresiunea Almaș-Agrij (Almás-Egregy-medence), between Băbiu (Bábony) and Almașu (Váralmás), shore of Băbiu Stream, 13.08.2014, N46.954° E23.099°, leg. A. Gubányi, G. Katona, A.Orosz & G. Puskás; **99**: Munții Meseșului (Meszes-hegység), Treznea (Ördökgút), main valley of the Treznea Stream, 29.09.2014, N47.11005° E23.06443°, leg. Zs. Bálint, L. Dányi, G. Katona & D. Murányi; **101**: Munții Meseșului (Meszes-hegység), Treznea (Ördökgút), main valley of the Treznea Stream, 30.09.2014, N47.10676° E23.08086°, leg. Zs. Bálint, L. Dányi, G. Katona & D. Murányi; **106**: Munții Plopiș (Réz-hegység), Iaz (Krasznajáz), valley of the Iaz Stream, 30.09.2014, N47.09521° E22.65478°, leg. Zs. Bálint, L. Dányi, G. Katona & D. Murányi;

Moina micrura Kurz, 1874

Locality: **253**: Dealurile Crasnei (Krasznamenti-dombság), Vârșolț (Varsolc), Vârșolț Reservoir, waterside in waterworks territory, 17.07.2015, N47.1931° E22.9069°, 239m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas;

Moina macrocopa (Straus, 1820)

Locality: **199**: Dealurile Crasnei (Krasznamenti-dombság), Săg (Felsőszék), puddle, 13.05.2015, N47.064367° E22.775945°, leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke;

Iliocryptus sp. juv.

Locality: **11**: Depresiunea Almaş-Agrij (Almás-Egregy-medence), between Hida (Hidalmás) and Racas (Almásrákos), fish pond at Jernau Stream, 23.04.2014, N47.09819° E23.23988°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi;

Macrothrix hirsuticornis Norman & Brady, 1867

Locality: **254**: Dealurile Crasnei (Krasznamenti-dombság), Crasna (Kraszna), Crasna (Kraszna) bridge, 17.07.2015, N47.162° E22.8762°, 247m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas;

Macrothrix laticornis (Fischer, 1848)

Locality: **11**: Depresiunea Almaş-Agrij (Almás-Egregy-medence), between Hida (Hidalmás) and Racas (Almásrákos), fish pond at Jernau Stream, 23.04.2014, N47.09819° E23.23988°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi;

Bosmina longirostris (O. F. Müller, 1785)

Locality: **253**: Dealurile Crasnei (Krasznamenti-dombság), Vârşoţ (Varsolc), Vârşoţ Reservoir, waterside in waterworks territory, 17.07.2015, N47.1931° E22.9069°, 239m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas;

Alona guttata Sars, 1862

Locality: **147**: Dealurile Crasnei (Krasznamenti-dombság), Vârşoţ, near Vârşoţ Reservoir, willows, reed bed, 28.04.2015, N47.17847° E22.88972°, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy;

Disparalona rostrata (Koch, 1841)

Locality: **253**: Dealurile Crasnei (Krasznamenti-dombság), Vârşoţ (Varsolc), Vârşoţ Reservoir, waterside in waterworks territory, 17.07.2015, N47.1931° E22.9069°, 239m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas;

Pleuroxus aduncus (Jurine, 1820)

Locality: **253**: Dealurile Crasnei (Krasznamenti-dombság), Vârşoţ (Varsolc), Vârşoţ Reservoir, waterside in waterworks territory, 17.07.2015, N47.1931° E22.9069°, 239m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas;

Chydorus sphaericus (O. F. Müller, 1776)

Localities: **3**: Munţii Meseşului (Meszes-hegység), Huta (Csákyújfalú), puddle, 23.04.2014, N47.00755° E22.94665°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **6**: Munţii Meseşului (Meszes-hegység), Poic, Satul Hurez (Bagolyfalú), tyre track, marshy meadow, 23.04.2014, N46.98433° E22.92079° leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **11**: Depresiunea Almaş-Agrij (Almás-Egregy-medence), between Hida (Hidalmás) and Racas (Almásrákos), fish pond at Jernau Stream, 23.04.2014, N47.09819° E23.23988°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **14**: Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), Mlaştina de la Iaz 1, marsh, 24.04.2014, N47.11065° E22.66125°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **95**: Culoarul Someşului (Szamos völgye), Cliţ (Csúrfalva), 14.08.2014, N47.307° E23.425°, leg. A. Gubányi, G. Katona, A. Orosz & G. Puskás; **101**: Munţii Meseşului (Meszes-

hegység), Treznea (Ördögkút), main valley of the Treznea Stream, 30.09.2014, N47.10676° E23.08086°, leg. Zs. Bálint, L. Dányi, G. Katona & D. Murányi; **121**: Munţii Plopiş (Réz-hegység), Tusa (Tuszatelke), Ponor, 02.10.2014, N47.0193° E22.69965°, leg. Zs. Bálint, L. Dányi, G. Katona & D. Murányi; **131**: Dealurile Crasnei (Krasznamenti-dombság), Balta Cehei, 1.5km NNW of Cehei (Somlyócsehi), Wedge of bog w/ reeds and open water near road, 27.04.2015, N47.26868° E22.75489°, 180m, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **136**: Dealurile Crasnei (Krasznamenti-dombság), Balta Cehei, 1.3km NW of Cehei (Somlyócsehi), bank of small artificial pool at canal from E edge of bog, 27.04.2015, N47.26766° E22.75747°, 180m, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **144**: Munţii Plopiş (Réz-hegység), 3km SW of Tusa (Tuszatelke), at Barcău (Berettyó) springs, rocky spring outlet, 28.04.2015, N47.02026° E22.74874°, 600m, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **147**: Dealurile Crasnei (Krasznamenti-dombság), Vârşoţ, near Vârşoţ Reservoir, willows, reed bed, 28.04.2015, N47.17847° E22.88972°, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **155**: Dealurile Gârboului (Csákigorbói-dombság), Goruna Mare, 1km SE of Cliţ (Csúrfalva), streambed in Valea Corbului, temporarily unflooded, shaded flats, sparsely vegetated soil, roots, 29.04.2015, N47.28648° E23.43572°, 190m, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **156**: Dealurile Gârboului (Csákigorbói-dombság), Goruna Mare, 1km SE of Cliţ (Csúrfalva), streambed in Valea Corbului, streamside, 29.04.2015, N47.28375° E23.43996°, 220m, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **173**: Culoarul Someşului (Szamos völgye), Cliţ (Csúrfalva), small forest pond, 11.05.2015, N47.283907° E23.43903°, leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke; **174**: Culoarul Someşului (Szamos völgye), Cliţ (Csúrfalva), small forest pond, 11.05.2015, N47.286288° E23.435738°, leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke; **183**: Munţii Meseşului (Meszes-hegység), Poic, Poic Stream, 12.05.2015, N46.980138° E22.925351°, leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke; **253**: Dealurile Crasnei (Krasznamenti-dombság), Vârşoţ (Varsolc), Vârşoţ Reservoir, waterside in waterworks territory, 17.07.2015, N47.1931° E22.9069°, 239m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas;

Leptodora kindtii (Focke, 1844)

Locality: **253**: Dealurile Crasnei (Krasznamenti-dombság), Vârşoţ (Varsolc), Vârşoţ Reservoir, waterside in waterworks territory, 17.07.2015, N47.1931° E22.9069°, 239m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas;

COPEPODA:

Eudiaptomus vulgaris (Schmeil, 1898)

Localities: **131**: Dealurile Crasnei (Krasznamenti-dombság), Balta Cehei, 1.5km NNW of Cehei (Somlyócsehi), Wedge of bog w/ reeds and open water near road, 27.04.2015, N47.26868° E22.75489°, 180m, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **136**: Dealurile Crasnei (Krasznamenti-dombság), Balta Cehei, 1.3km NW of Cehei (Somlyócsehi), bank of small artificial pool at canal from E edge of bog,

27.04.2015, N47.26766° E22.75747°, 180m, leg. A. Gubányi, Cs. Kutasi & Gy.Makranczy;

Mixodiptomus tatricus (Wierzejski, 1883)

Localities: **173**: Culoarul Someşului (Szamos völgye), Cliţ (Csűrfa), small forest pond, 11.05.2015, N47.283907° E23.43903°, leg. A. Grabant, O. Merkl, A.Podlussány, V. Szóke; **199**: Dealurile Crasnei (Krasznamenti-dombság), Săg (Felsőszék), puddle, 13.05.2015, N47.064367° E22.775945°, leg. A. Grabant, O. Merkl, A.Podlussány, V. Szóke;

Mixodiptomus kupelwieseri (Brehm, 1907)

Locality: **156**: Dealurile Gârboului (Csáki-gorbat-dombság), Goruna Mare, 1km SE of Cliţ (Csűrfa), streambed in Valea Corbului, streamside, 29.04.2015, N47.28375° E23.43996°, 220m, leg. A. Gubányi, Cs. Kutasi & Gy.Makranczy;

Diptomus sp. juv.

Localities: **8**: Munţii Meseşului (Meszes-hegység), Poic, Satul Hurez (Bagolyfalu), tyre track, 23.04.2014, N46.97255° E22.94902°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **202**: Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), Mlaştina de la Iaz, marsh, 13.05.2015, N47.11° E22.659°, leg. A. Grabant, O. Merkl, A.Podlussány, V. Szóke;

Macrocylops albidus (Jurine, 1820)

Localities: **87**: Depresiunea Almaş-Agrij (Almás-Egregy-medence), between Băbiu (Bábony) and Almaşu (Váralmás), shore of Băbiu Stream, 13.08.2014, N46.954° E23.099°, leg. A. Gubányi, G. Katona, A.Orosz & G. Puskás; **254**: Dealurile Crasnei (Krasznamenti-dombság), Crasna (Kraszna), Crasna (Kraszna) bridge, 17.07.2015, N47.162° E22.8762°, 247m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas;

Eucyclops macrurus (G. O. Sars, 1863)

Locality: **87**: Depresiunea Almaş-Agrij (Almás-Egregy-medence), between Băbiu (Bábony) and Almaşu (Váralmás), shore of Băbiu Stream, 13.08.2014, N46.954° E23.099°, leg. A. Gubányi, G. Katona, A.Orosz & G. Puskás;

Eucyclops serrulatus (Fischer, 1851)

Localities: **90**: Dealurile Sălajului (Szilágymenti-dombság), Popeni (Szilágyaptelek), 14.08.2014, N47.25° E23.189°, leg. A. Gubányi, G. Katona, A.Orosz & G. Puskás; **95**: Culoarul Someşului (Szamos völgye), Cliţ (Csűrfa), 14.08.2014, N47.307° E23.425°, leg. A. Gubányi, G. Katona, A.Orosz & G. Puskás; **183**: Munţii Meseşului (Meszes-hegység), Poic, PoicStream, 12.05.2015, N46.980138° E22.925351°, leg. A. Grabant, O. Merkl, A.Podlussány, V. Szóke; **253**: Dealurile Crasnei (Krasznamenti-dombság), Vârşoţ (Varsolc), Vârşoţ Reservoir, waterside in waterworks territory, 17.07.2015, N47.1931° E22.9069°, 239m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas; **254**: Dealurile Crasnei (Krasznamenti-dombság), Crasna (Kraszna), Crasna (Kraszna) bridge, 17.07.2015, N47.162° E22.8762°, 247m, leg. Z. Eröss, A. Kenéz, P.G. Sulyán, Z. Vas; **275**: Dealurile Boiului (Szamoszug), Vălişoara (Dióspatak), stream valley, spring, 10.09.2015, N47.356965° E23.427326°, leg. A. Gubányi, A. Orosz, L.Ronkay & M. Tóth;

Paracyclops affinis (G. O. Sars, 1863)

Locality: **131**: Dealurile Crasnei (Krasznamenti-dombság), Balta Cehei, 1.5km NNW of Cehei (Somlyócsehi), Wedge of bog w/ reeds and open water near road, 27.04.2015, N47.26868° E22.75489°, 180m, leg. A. Gubányi, Cs. Kutasi & Gy.Makranczy;

Paracyclops fimbriatus (Fischer, 1853)

Localities: **14**: Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), Mlaştina de la Iaz 1, marsh, 24.04.2014, N47.11065° E22.66125°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **18**: Munţii Plopiş (Réz-hegység), Tusa (Tuszatelve), Barcău (Berettyó) springs, 24.04.2014, N47.02035° E22.74876°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **275**: Dealurile Boiului (Szamoszug), Vălişoara (Dióspatak), stream valley, spring, 10.09.2015, N47.356965° E23.427326°, leg. A. Gubányi, A. Orosz, L.Ronkay & M. Tóth;

Cyclops strenuus Fischer, 1851

Localities: **1**: Dealurile Crasnei (Krasznamenti-dombság), 1.5km NNW of Cehei (Somlyócsehi), Balta Cehei, 22.04.2014, N47.26897° E22.75423°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **12**: Dealurile Crasnei (Krasznamenti-dombság), Vârşoţ (Varsolc), near Vârşoţ Reservoir, 23.04.2014, N47.17822° E22.89021°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **14**: Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), Mlaştina de la Iaz 1, marsh, 24.04.2014, N47.11065° E22.66125°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **147**: Dealurile Crasnei (Krasznamenti-dombság), Vârşoţ, near Vârşoţ Reservoir, willows, reed bed, 28.04.2015, N47.17847° E22.88972°, Leg. A. Gubányi, Cs. Kutasi & Gy.Makranczy;

Cyclops vicinus Uljanin, 1875

Locality: **11**: Depresiunea Almaş-Agrij (Almás-Egregy-medence), between Hida (Hidalmás) and Racas (Almárákos), fish pond at Jernau Stream, 23.04.2014, N47.09819° E23.23988°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi;

Megacyclops viridis (Jurine, 1820)

Localities: **1**: Dealurile Crasnei (Krasznamenti-dombság), 1.5km NNW of Cehei (Somlyócsehi), Balta Cehei, 22.04.2014, N47.26897° E22.75423°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **4**: Munţii Meseşului (Meszes-hegység), Huta (Csákyújfalu), beech forest, 23.04.2014, N46.9942° E22.92844°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **6**: Munţii Meseşului (Meszes-hegység), Poic, Satul Hurez (Bagolyfalu), tyre track, marshy meadow, 23.04.2014, N46.98433° E22.92079° leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **7**: Munţii Meseşului (Meszes-hegység), Poic, Satul Hurez (Bagolyfalu), tyre track, 23.04.2014, N46.98345° E22.91933°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **14**: Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), Mlaştina de la Iaz 1, marsh, 24.04.2014, N47.11065° E22.66125°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **27**: Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), Mlaştina de la Iaz 1, marsh, 19-21.05.2014, N47.11065° E22.66125°, leg. Zs. Bálint, A. Gubányi, G. Katona & Cs. Kutasi; **28**: Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), Mlaştina de la Iaz 2, puddle, pastures, 19.05.2014, N47.11088° E22.6589°,

leg. Zs. Bálint, A. Gubányi, G. Katona & Cs. Kutasi; **99**: Munții Meseșului (Meszes-hegység), Treznea (Ördögkút), main valley of the Treznea Stream, 29.09.2014, N47.11005° E23.06443°, leg. Zs. Bálint, L. Dányi, G. Katona & D. Murányi; **101**: Munții Meseșului (Meszes-hegység), Treznea (Ördögkút), main valley of the Treznea Stream, 30.09.2014, N47.10676° E23.08086°, leg. Zs. Bálint, L. Dányi, G. Katona & D. Murányi; **121**: Munții Plopiș (Réz-hegység), Tusa (Tuszatelke), Ponor, 02.10.2014, N47.0193° E22.69965°, leg. Zs. Bálint, L. Dányi, G. Katona & D. Murányi; **147**: Dealurile Crasnei (Krasznamenti-dombság), Vârșoț, near Vârșoț Reservoir, willows, reed bed, 28.04.2015, N47.17847° E22.88972°, Leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **155**: Dealurile Gârboului (Csáki-gorbi-dombság), Goruna Mare, 1km SE of Cliț (Csúrfalva), streambed in Valea Corbului, temporarily unflooded, shaded flats, sparsely vegetated soil, roots, 29.04.2015, N47.28648° E23.43572°, 190m, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **156**: Dealurile Gârboului (Csáki-gorbi-dombság), Goruna Mare, 1km SE of Cliț (Csúrfalva), streambed in Valea Corbului, streamside, 29.04.2015, N47.28375° E23.43996°, 220m, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **173**: Culoarul Someșului (Szamos völgye), Cliț (Csúrfalva), small forest pond, 11.05.2015, N47.283907° E23.43903°, leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke; **174**: Culoarul Someșului (Szamos völgye), Cliț (Csúrfalva), small forest pond, 11.05.2015, N47.286288° E23.435738°, leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke; **202**: Munții Plopiș (Réz-hegység), Iaz (Krasznajáz), Mlaștina de la Iaz, marsh, 13.05.2015, N47.11° E22.659°, leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke;

Acanthocyclops vernalis (Fischer, 1853)

Localities: **3**: Munții Meseșului (Meszes-hegység), Huta (Csákyújfalu), puddle, 23.04.2014, N47.00755° E22.94665°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **6**: Munții Meseșului (Meszes-hegység), Poic, Satul Hurez (Bagolyfalu), tyre track, marshy meadow, 23.04.2014, N46.98433° E22.92079° leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **7**: Munții Meseșului (Meszes-hegység), Poic, Satul Hurez (Bagolyfalu), tyre track, 23.04.2014, N46.98345° E22.91933°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi;

Diacyclops bisetosus (Rehberg, 1880)

Locality: **7**: Munții Meseșului (Meszes-hegység), Poic, Satul Hurez (Bagolyfalu), tyre track, 23.04.2014, N46.98345° E22.91933°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi;

Diacyclops languidus (Sars, 1863)

Locality: **7**: Munții Meseșului (Meszes-hegység), Poic, Satul Hurez (Bagolyfalu), tyre track, 23.04.2014, N46.98345° E22.91933°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi;

Microcyclops varicans (G. O. Sars, 1863)

Locality: **6**: Munții Meseșului (Meszes-hegység), Poic, Satul Hurez (Bagolyfalu), tyre track, marshy meadow, 23.04.2014, N46.98433° E22.92079° leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi;

Metacyclops minutus (Claus, 1863)

Localities: **8**: Munții Meseșului (Meszes-hegység), Poic, Satul Hurez (Bagolyfalu), tyre track, 23.04.2014, N46.97255° E22.94902°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi; **199**: Dealurile Crasnei (Krasznamenti-dombság), Săg (Felsőszék), puddle, 13.05.2015, N47.064367° E22.775945°, leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke;

Thermocyclops dybowskii (Lande, 1890)

Locality: **14**: Munții Plopiș (Réz-hegység), Iaz (Krasznajáz), Mlaștina de la Iaz 1, marsh, 24.04.2014, N47.11065° E22.66125°, leg. L. Forró, A. Gubányi, G., Katona & Cs. Kutasi;

Thermocyclops crassus (Fischer, 1853)

Localities: **106**: Munții Plopiș (Réz-hegység), Iaz (Krasznajáz), valley of the Iaz Stream, 30.09.2014, N47.09521° E22.65478°, leg. Zs. Bálint, L. Dányi, G. Katona & D. Murányi; **253**: Dealurile Crasnei (Krasznamenti-dombság), Vârșoț (Varsolc), Vârșoț Reservoir, waterside in waterworks territory, 17.07.2015, N47.1931° E22.9069°, 239m, leg. Z. Erőss, A. Kenéz, P.G. Sulyán, Z. Vas;

Cyclops sp. juv.

Localities: **79**: Munții Meseșului (Meszes-hegység), Cizer (Csiszér), 12.08.2014, N47.021° E22.864°, leg. A. Gubányi, G. Katona, A. Orosz & G. Puskás; **81**: Munții Meseșului (Meszes-hegység), Pria (Perje), W of Vf. Măgura Priei (Perjei csúcs), 12.08.2014, N47.004° E22.882°, leg. A. Gubányi, G. Katona, A. Orosz & G. Puskás; **89**: Depresiunea Almaș-Agrij (Almás-Egregy-medence), Baica (Bányika), Băcuța Stream, 13.08.2014, N47.073° E23.269°, leg. A. Gubányi, G. Katona, A. Orosz & G. Puskás; **94**: Culoarul Someșului (Szamos völgye), Cliț (Csúrfalva), 14.08.2014, N47.292° E23.432°, leg. A. Gubányi, G. Katona, A. Orosz & G. Puskás; **136**: Dealurile Crasnei (Krasznamenti-dombság), Balta Cehei, 1.3km NW of Cehei (Somlyócsehi), bank of small artificial pool at canal from E edge of bog, 27.04.2015, N47.26766° E22.75747°, 180m, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **144**: Munții Plopiș (Réz-hegység), 3km SW of Tusa (Tuszatelke), at Barcău (Berettyó) springs, rocky spring outlet, 28.04.2015, N47.02026° E22.74874°, 600m, leg. A. Gubányi, Cs. Kutasi & Gy. Makranczy; **213**: Munții Plopiș (Réz-hegység), Tusa (Tuszatelke), Ponor Plateau, spruce forest with a pond, 28.05.2015, N47.019721° E22.699143°, 800m, leg. Zs. Bálint, A. Gubányi & G. Katona;

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