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CONTRIBUTION TO THE KNOWLEDGE OF THE HERPETOFAUNA OF THE SĂLAJ-REGION, ROMANIA (AMPHIBIA, REPTILIA)

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ABSTRACT. We provide 79 data of 53 collecting events originating from the Sălaj-region of western Transylvania, Romania between 22. April, 2014 and 10. September, 2015. Geographical, spatial and temporal records are documented for the better knowledge of nine amphibian and seven reptilian species. We remark that the number of roadkilled animals is very high despite the low traffic in the research areas.

Keywords: Amphibia, Reptilia, Romania, Sălaj, faunistics

INTRODUCTION:

The recent herpetofauna of county Sălaj is rather well known, due to the research works of *Cogălniceanu et al.*, (2013), *Covaciu-Marcov et al.*, (2006, 2009), *Ghira*, (1997*), Ghira et al.*, (1997a, 1997b, 2002), *Török* (1997, 1999, 2004) and *Fecske et al.* (2015). Our collectings in 2014 and 2015 were done as part of research project "Invertebrate faunistical investigation of the Sălaj county" established between the University Vasile Goldiş and the Hungarian Natural History Museum. Although the herpetofauna was not included in the reserach subjects, the intensive fieldwork provided many records, which cannot be neglected. These findings are summarized in this article.

MATERIAL AND METHODS:

All the records are field observations (permission numbers for collectings: 1272/17.04.2014, 1659/ 23.04.2014, 4920/09.05.2014) documented by digital photographs or notebook entries. The species were identified by the authors, exept some cases when our colleagues (V. Szőke and M. Tóth) provided the data, indicated in the list of localities. We found some specimens dead (roadkills or in traps). Corpses in suitable condition for further examinations (parasitological, genetical) and sloughed skins are deposited in the Collection of Amphibians and Reptiles, Hungarian National History Museum.

We list and map (Fig. 1) all the localities where reptilians and amphibians were recorded. The numbers refer to *Gubányi* (2015) where more detailed information can be found on the sites and collecting events. For the comparison with old records, we also give the Hungarian equivalents in parentheses after the Romanian names.

Abbreviations: ad. = adult, juv. = juvenile, * = Photo available, ** = Voucher specimens deposited in the Collection of Amphibians and Reptiles, Hungarian National History Museum.

List of localities

2 – Dealurile Boiului (Szamoszug), Vălişoara (Diószpatak) 22.04.2014, N47.39106° E23.40779°, (leg. L. Forró, A. Gubányi, G. Katona, Cs. Kutasi).

3 – Munţii Meseşului (Meszes-hegység), Huta (Csákyújfalu), 23.04.2014, N47.00755° E22.94665°,(leg. L. Forró, A. Gubányi, G. Katona, Cs. Kutasi).

4 – Munţii Meseşului (Meszes-hegység), Huta (Csákyújfalu), 23.04.2014, N46.9942° E22.92844°,(leg. L. Forró, A. Gubányi, G. Katona, Cs. Kutasi).

6 – Munţii Meseşului (Meszes-hegység), Poic (Satul Hurez), 23.04.2014, N46.98433° E22.92079°, (leg. L. Forró, A. Gubányi, G. Katona, Cs. Kutasi).

7 – Munţii Meseşului (Meszes-hegység), Poic (Satul Hurez), 23.04.2014, N46.98345° E22.91933°, (leg. L. Forró, A. Gubányi, G. Katona, Cs. Kutasi).

11 – Depresiunea Almaş-Agrij (Almás-Egregy-medence), between Hida (Hidalmás) and Racas (Almásrákos), 23.04.2014, N47.09819° E23.23988°, (leg. L. Forró, A. Gubányi, G. Katona, Cs. Kutasi).

12 – Dealurile Crasnei (Krasznamenti-dombság), Vârşolţ (Varsolc), near Vârşolţ 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).

15 – Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), Mlaştina de la Iaz 2, marsh, 24.04.2014, N47.11082° E22.65911°, (leg. L. Forró, A. Gubányi, G. Katona, Cs. Kutasi).

17 – Munţii Plopiş (Réz-hegység), Tusa (Tuszatelke), Barcău (Berettyó) springs, 24.04.2014, N47.02001° E22.75373°, (leg. L. Forró, A. Gubányi, G. Katona, Cs. Kutasi).

28 – Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), Mlaştina de la Iaz 2, 19.05.2014, N47.11088° E22.6589°, (leg. Zs. Bálint, A. Gubányi, G. Katona, Cs. Kutasi).

30 – Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), Mlaştina de la Iaz 3, 20.05.2014, N47.11075° E22.66208°, (leg. Zs. Bálint, A. Gubányi, G. Katona, Cs. Kutasi).

34 – Dealurile Crasnei (Krasznamenti-dombság), Vârşolţ (Varsolc), near Vârşolţ Reservoir,

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20.05.2014, N47.17847° E22.88972°, (leg. Zs. Bálint, A. Gubányi, G. Katona, Cs. Kutasi).

36 – Munţii Meseşului (Meszes-hegység), Huta (Csákyújfalu), 21-23.05.2014, N46.99677° E22.93072°, (leg. Zs. Bálint, A. Gubányi, G. Katona, Cs. Kutasi).

37 – Munţii Meseşului (Meszes-hegység), Huta (Csákyújfalu), 21-22.05.2014, N46.99569° E22.92313°, (leg. Zs. Bálint, A. Gubányi, G. Katona, Cs. Kutasi).

45 – Munţii Meseşului (Meszes-hegység), Poic (Satul Hurez), 22.05.2014, N46.97925° E22.92752°, (leg. Zs. Bálint, A. Gubányi, G. Katona, Cs. Kutasi).

49 – Depresiunea Almaş-Agrij (Almás-Egregy-medence), Adalin, 23.05.2014, N47.00283° E23.43822°, (leg. Zs. Bálint, A. Gubányi, G. Katona, Cs. Kutasi).

64 – Dealurile Crasnei (Krasznamenti-dombság), between Valcău de Jos (Alsóvalkó) and Boghiş (Szilágybagos), at Barcău (Berettyó) River, 03.06.2014, N47.139° E22.739°, (leg. A. Orosz, G. Puskás, Z. Soltész, M. Tóth), det. M. Tóth.

79 – Munţii Meseşului (Meszes-hegység), Cizer (Csiszér), 12.08.2014, N47.021° E22.864°, (leg. A. Gubányi, G. Katona, A. Orosz, G. Puskás).

81 – Munţii Meseşului (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).

82 – Munţii Meseşului (Meszes-hegység), 2.5 km SW of Huta (Csákyújfalu), at Poicu Stream, 12.08.2014, N46.986° E22.917°, (leg. A. Gubányi, G. Katona, A. Orosz, G. Puskás).

85 – Dealurile Crasnei (Krasznamenti-dombság), W of Aghireş (Egrespatak), 12-13.08.2014, N47.157° E22.992°, (leg. A. Gubányi, G. Katona, A. Orosz, G. Puskás).

89 – Depresiunea Almaş-Agrij (Almás-Egregy-medence), Baica (Bányika), Băcuţa Stream, 13.08.2014, N47.073° E23.269°, (leg. A. Gubányi, G. Katona, A. Orosz, G. Puskás).

90 – Dealurile Sălajului (Szilágymenti-dombság), Popeni (Szilágypaptelek), 14.08.2014, N47.25° E23.189°, (leg. A. Gubányi, G. Katona, A. Orosz, G. Puskás).

100 – Munţii Meseşului (Meszes-hegység), Treznea (Ördögkút), 29.09.2014, N47.11063° E23.04968°, (leg. Zs. Bálint, L. Dányi, G. Katona, D. Murányi).

104 – Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), 30.09.2014, N47.111° E22.659°, (leg. Zs. Bálint, L. Dányi, G. Katona, D. Murányi).

106 – Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), 30.09.2014, N47.09521° E22.65478°, (leg. Zs. Bálint, L. Dányi, G. Katona, D. Murányi).

108 – Dealurile Crasnei (Krasznamenti-dombság), W of Aghireş (Egrespatak), 30.09.2014, N47.157° E22.992°, (leg. Zs. Bálint, L. Dányi, G. Katona, D. Murányi).

113 – Munţii Meseşului (Meszes-hegység), Pria (Perje), SW slope of Vf. Măgura Priei (Perjei csúcs), 01.10.2014, N47.004° E22.8966°, (leg. Zs. Bálint, L. Dányi, G. Katona, D. Murányi).

122 – Munţii Plopiş (Réz-hegység), Tusa (Tuszatelke), Ponor, 02.10.2014, N47.00953° E22.72308°, (leg. Zs. Bálint, L. Dányi, G. Katona, D. Murányi).

167 – Culoarul Someşului (Szamos völgye), Surduc (Szurduk), 11.05.2015, N47.291° E23.374°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

170 – Culoarul Someşului (Szamos völgye), Cliţ (Csűrfalva), 11.05.2015, N47.284° E23.439°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

173 – Culoarul Someşului (Szamos völgye), Cliţ (Csűrfalva), 11.05.2015, N47.283907° E23.43903°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

174 – Culoarul Someşului (Szamos völgye), Cliţ (Csűrfalva), 11.05.2015, N47.286288° E23.435738°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

175 – Culoarul Someşului (Szamos völgye), Surduc (Szurduk), 11.05.2015, N47.247° E23.338°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

176 – Depresiunea Almaş-Agrij (Almás-Egregy-medence), Tihău (Tihó), 11.05.2015, N47.232° E23.316°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

179 – Munţii Meseşului (Meszes-hegység), Poic (Satul Hurez), 12.05.2015, N46.992° E22.917°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

180 – Munţii Meseşului (Meszes-hegység), Poic (Satul Hurez), 12.05.2015, N46.98° E22.925°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

184 – Munţii Meseşului (Meszes-hegység), Poic (Satul Hurez), 12.05.2015, N46.98° E22.925°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

186 – Munţii Meseşului (Meszes-hegység), Poic (Satul Hurez), 12.05.2015, N46.971° E22.946°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

190 – Munţii Meseşului (Meszes-hegység), Poic (Satul Hurez), 12.05.2015, N46.994° E22.93°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

199 – Dealurile Crasnei (Krasznamenti-dombság), Săg (Felsőszék), 13.05.2015, N47.064367° E22.775945°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

200 – Munţii Plopiş (Réz-hegység), Tusa (Tuszatelke), Barcău (Berettyó) springs, 13.05.2015, N47.02° E22.749°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

201 – Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), Mlaştina de la Iaz, 13.05.2015, N47.11° E22.659°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

203 – Munţii Plopiş (Réz-hegység), Iaz (Krasznajáz), Mlaştina de la Iaz, 13.05.2015, N47.11° E22.659°,

(leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

205 – Dealurile Boiului (Szamoszug), SE of Vălişoara (Dióspatak), 26-27.05.2015, N47.375726° E23.412241°, (leg. Zs. Bálint, A. Gubányi, G. Katona).

208 – Dealurile Boiului (Szamoszug), SE of Vălişoara (Dióspatak), 26-27.05.2015, N47.376865° E23.408879°, (leg. Zs. Bálint, A. Gubányi, G. Katona).

213 – Munţii Plopiş (Réz-hegység), Tusa (Tuszatelke), Ponor Plateau, 28.05:2015, N47.019721° E22.699143°, 800m; (leg. Zs. Bálint, A. Gubányi, G. Katona).

221 – Dealurile Crasnei (Krasznamenti-dombság), W of Aghireş (Egrespatak), 28-29.05:2015, N47.156611° E22.990925°, 320m(leg. Zs. Bálint, A. Gubányi, G. Katona).

232 – Munţii Meseşului (Meszes-hegység), Poic (Satul Hurez), marshy meadow, 14.07.2015, N46.9842° E22.9199°, 597m; (leg. Z. Erőss, A. Kenéz, P.G. Sulyán, Z. Vas), photo: Z. Vas, det. V. Szőke.

259 – Depresiunea Almaş-Agrij (Almás-Egregy-medence), Ugruţiu (Ugróc), 07.09.2015, N47.016705° E23.358705°, (leg. A. Gubányi, A. Orosz, L. Ronkay, M. Tóth), det. M. Tóth.

271 – Dealurile Boiului (Szamoszug), Vălişoara (Dióspatak), , 10.09.2015, N47.360497° E23.426362°, (leg. A. Gubányi, A. Orosz, L. Ronkay, M. Tóth), det. M. Tóth.

P1 – Munţii Meseşului (Meszes-hegység), between Bogdana and Huta, 12.5.2015., N47,016° E22,967°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

P2 – Munţii Meseşului (Meszes-hegység), Huta, 12.5.2015., N46,997° E22,931°, (leg. A. Grabant, O. Merkl, A. Podlussány, V. Szőke), det. V. Szőke.

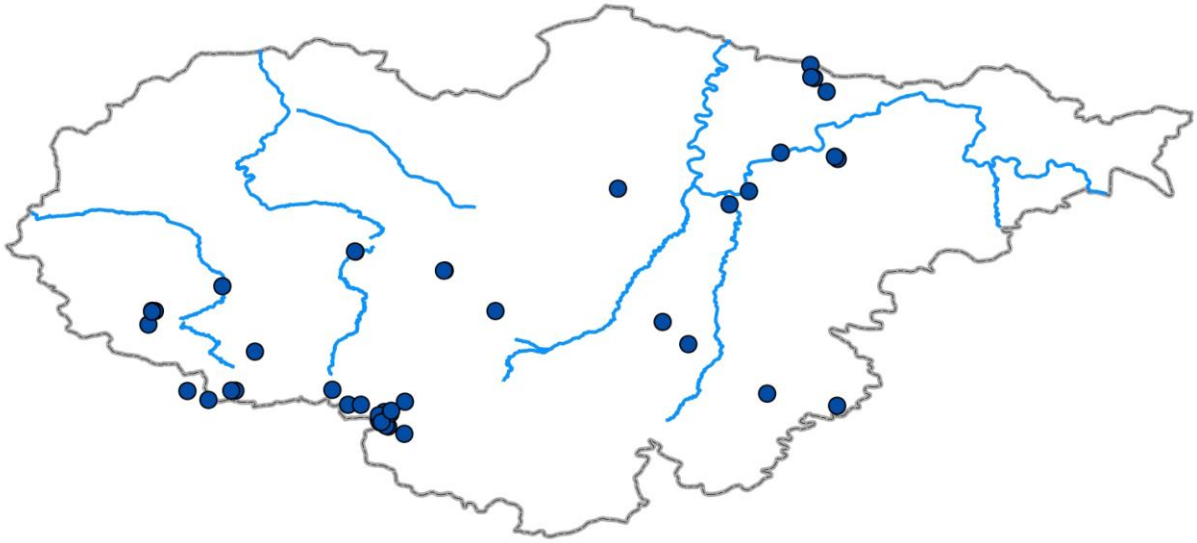

Fig. 1. The overview of herpetological observating points of the Hungarian Natural History Museum in 2014 and 2015.

RESULTS:

Amphibia

Caudata

SALAMANDRIDAE

Salamandra salamandra (Linnaeus, 1758) – 4 (Huta, ad.*), 36 (Huta, ad. roadkilled), 45 (Poic (Satul Hurez), ad.*), 100 (Treznea, ad.), 122 (Tusa, Ponor, 2 ad.), 180 (Poic (Satul Hurez), ad., larva*), 190 (Poic (Satul Hurez), ad.*, larva), 205 (Vălişoara, 2 ad. both roadkilled), P2 (Huta, ad. roadkilled*).

Lissotriton vulgaris (Linnaeus, 1758) – 11 (Hida, ad.*?), 173 (Clit, ad.*).

Triturus cristatus (Laurenti, 1768) – 104 (Iaz, ad.**).

Anura

BOMBINATORIDAE

Bombina variegata (Linnaeus, 1758) – 3 (Huta, ad.), 4 (Huta, ad.*), 7 (Poic (Satul Hurez), ad.), 15 (Iaz, ad.), 28 (Iaz, ad.), 34 (Vârşolţ, ad.), 36 (Huta, ad.), 79 (Cizer, ad.), 81 (Pria, ad.), 82 (Poic (Satul Hurez), ad.), 173 (Cliţ, ad.*), 174 (Cliţ, ad.), 179 (Poic (Satul Hurez), ad., eggs*), 180 (Poic (Satul Hurez), juv.*), 186 (Poic (Satul Hurez), ad.*), 190 (Poic (Satul Hurez), ad.*, larva), 199 (Săg, ad., juv.*), 200 (Tusa, ad.*, juv.*, eggs*), 203 (Iaz, larva), 205 (Vălişoara, ad.) 213 (Ponor, ad.), P2 (Huta, ad.*).

PELOBATIDAE

Pelobates fuscus (Laurenti, 1768) – 12 (Vârşolţ, ad., juv.*Fig. 2), 259 (Ugruţiu, ad.).

BUFONIDAE

Bufo bufo (Linnaeus, 1758) – 37 (Huta, ad. roadkilled) 205 (Vălişoara, ad.).

HYLIDAE

Hyla arborea (Linnaeus, 1758) – 14 (Iaz, ad.*).

RANAIDAE

Pelophylax cl. esculenta x Pelophylax ridibunda system 12 (Vârşolţ, ad.); 34 (Vârşolţ, ad.), 89 (Baica, ad.), 106 (Iaz, ad.), 173 (Cliţ, ad.).

Rana temporaria (Linnaeus, 1758) – 6 (Poic (Satul Hurez), ad.*), 180 (Poic (Satul Hurez), larva*), 190 (Poic (Satul Hurez), ad.*), P1 (Bogdana, larva*).

Fig. 2. A juvenile individual of the common spadefoot (*Pelobates fuscus*) near lake Vârşolţ, loc. 12 (photo: A. Gubányi).

Reptilia
Squamata
LACERTIDAE

Zootoca vivipara (Jacquin, 1787) – 113 (Pria, juv.*).

Lacerta agilis (Linnaeus, 1758) – 36 (Huta, 4 ad.*, 2 roadkilled), 64 (Boghis, ad.*) 108 (Aghireş, ad.), 167 (Surduc, ad. skin**), 184 (Poic (Satul Hurez), juv.*), 201 (Iaz, ad.), 205 (Vălişoara, ad.), 221 (Aghireş, ad.), 232 (Poic (Satul Hurez), ad.*).

Lacerta viridis Laurenti, 1768 – 85 (Aghireş, ad.*, juv.**), 108 (Aghireş, 6 juv.**), 175 (Surduc, juv.), 194 (Aghireş, ad., juv.), 201 (Iaz, ad.).

ANGUIDAE

Anguis colchica (Nordmann, 1840) – 30 (Iaz, ad. roadkilled**), 36 (Huta, ad.), 37 (Huta, ad.*), 49 (Adalin, ad.), 208 (Vălişoara, juv. roadkilled**).

COLUBRIDAE

Coronella austriaca Laurenti, 1768 – 2 (Vălişoara, ad.*), 17 (Tusa, ad.*), 36 (Huta, juv.), 170 (Cliţ, juv.*), 271 (Vălişoara, juv. roadkilled* Fig. 4).

Natrix tessellata Laurenti, 1768 – 176 (Tihău, juv.*).

Natrix natrix Linnaeus, 1758 – 36 (Huta, ad. roadkilled**), 90 (Popeni, ad.), 104 (Iaz, 2 ad., 1 juv. skin**), 205 (Vălişoara, juv.*Fig. 3), P1(Bogdana, juv.*).

Fig. 3. A dark individual of the grass snake (*Natrix natrix*), Vălişoara, loc. 205 (photo: A. Gubányi).

Fig. 4. Corpse of a roadkilled smooth snake (*Coronella austriaca*), Vălişoara, loc. 271 (photo: M. Tóth).

CONCLUSIONS:

We provided 79 data of 53 collecting events originating from the Sălaj-region of western Transylvania, Romania between 22. April, 2014 and 10. September, 2015.

Most of the species found are common and widespread, but from faunistical and zoogeographical point of view, the records of *Pelobates fuscus*, *Zootoca vivipara*, *Coronella austriaca* and *Anguis colchica* seem to be important.

In conclusion, 11 of 79 data were roadkilled animals (14%). The ratio proved to be very high, despite the low traffic of the side and/or dirt roads in the research area.

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