

Contribution to the Veigaiidae Oudemans, 1939 fauna of the Carpathian Basin and the Balkan Peninsula (Acari: Mesostigmata)

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Abstract. Altogether nine veigaiid mite species were listed from different countries of the Carpathian Basin and the Balkan Peninsula, eight of them belonging to the genus *Veigaia* Oudemans, 1905 and one to *Gamasolaelaps* Berlese, 1904. New species are added to the fauna of Albania (two), Austria (one), Kosovo (one), Macedonia (three), Serbia (four) and Slovakia (two).

Keywords. Acari, Mesostigmata, Veigaiidae, Balkan Peninsula, Carpathian Basin, first record.

INTRODUCTION

As belonging to the Mesostigmata order, the family *Veigaiidae* Oudemans, 1939 comprises free-living predator mite species. The classification of the family is generally accepted, it has four genera, namely *Cyrthyrolaelaps* Berlese, 1905, *Gamasolaelaps* Berlese, 1904, *Gorirossia* Farrier, 1957 and *Veigaia* Oudemans, 1905. Nevertheless, *Gorirossia* Farrier, 1957 has been considered as a junior synonym of *Gamasolaelaps* (Bregetova, 1977). The genus *Gamasolaelaps* Berlese, 1904 has the highest species number including about 60 species in the Holarctic region. Numerous data are available from different localities worldwide, e.g. from America (Farrier 1957), Africa (Hurlbutt 1979), Europe (Karg 1993; Willmann 1936; Evans 1955; Salmane & Kontschán 2005a; Bregetova 1961, Mašán *et al.* 2008), Australia and New Zealand (Womersley 1956), Caucasus (Petrova & Makarova 1989), China (Ma 1996).

These mites live in the upper soil surface, in the litter of forests, moss, decaying organic matter, often found in nests of ants, birds, and rodents. They prey mainly on eggs or larvae of small insects, smaller mite species, nematodes, and collembolans.

New occurrences for several countries from the Balkan Peninsula (Albania, Kosovo, Macedonia, Serbia) and the Carpathian Basin (Austria, Romania, Slovakia) are reported here, which expand our knowledge on the distribution of the family *Veigaiidae* Oudemans, 1939.

MATERIAL AND METHODS

Soil samples were taken in different countries during collecting trips and they were deposited in the Soil Zoology Collection of Hungarian Natural History Museum. Samples were extracted on Berlese-Tullgren type funnels. After examining under stereomicroscope the samples originated from the Balkan Peninsula and the Carpathian Basin, the veigaiid mites were sorted out and prepared by using lactic acid. The specimens examined are stored in ethanol and deposited in the Soil Zoology Collection of the Hungarian Natural History Museum. The classification of *Veigaiidae* Oudemans, 1939 follows Bregetova (1961). Dorsal and ventral chaetotaxy follows Lindquist & Evans (1965). The ecological characteristics added also on the basis of Bregetova (1961). The abbreviation of collectors are as follows: AD: Dorottya Angyal, AM: Andrej Mock, CSCS: Csaba Csuzdi, DL: László Dányi, EJ: Judit Eröss, FZ: Zoltán Fehér, HE: Edit

Horváth, JZS: Zsuzsa Jely, KJ: Jenő Kontschán, KZ: Zoltán Korsós, LE: Endre Lazányi, MD: Dávid Murányi, MF: Ferenc Mészáros, MS: Sándor Mahunka, OA: András Orosz, OK: Kirill Márk Orci, PL: Peter L'uptáčík, SZGY: György Sziráki, SZT: Tamás Szűts, UC: unknown collector.

RESULTS

Family Veigaiidae Oudemans, 1939

Genus *Veigaia* Oudemans, 1905

Veigaia cerva (Kramer, 1876)

(Figure 1)

Gamasus cervus Kramer, 1876: 83.

Veigaia cervus: Salmane & Kontschán 2005b: 15.

Veigaia cerva: Kontschán & Ujvári 2008: 348, Fend'a & Mašán 2009: 191.

Material examined. *Carpathian Basin*: Romania, Jolotca from moss 05.VII.2001 HE. Romania, Râmetea, towards Piatra Secuiului from soil 07.VII.1998 HE. Romania, 2 km away from Pasul Vlăhița, from *Sphagnum* 01.VIII.1999 OA. Romania, Băile Balványos from *Sphagnum* 01.VIII.1999 OA. Romania, Lacul Sfânta Ana, Tinovul Mohos from moss 01.VIII.1999 OA. Romania, Arieș vale, from moss 11.VII.1998 HE. Romania, Abrud from moss 25.XI.2003 CSCS. Romania, Tisa, from wet meadow soil 27.VI.2005.–01.VII.2005 OK, MD, KJ. Slovakia, Hrabusice-Podlesok, Suchá Belá from beech litter 02.VII.1991. MS. *Balkan Peninsula*: Kosovo, „Bjelushe (Beluka) W gorge along the road to Cakor-pass”, from beech and pine litter 05.X.2005 MD. Serbia, Krajište Mts, Surdulica, brook in beech forest at the upper damn of the Vrla River 20.X.2006 DL, KJ, MD.

Published records. Austria (Ambros 1995), Belgium (Skubała *et al.* 2013), British Isles (Evans 1955), Finland (Huhta & Niemi 2003), Germany, Switzerland, England, France, United States, Canada (Farrier 1957), Hungary (Salmane & Kontschán 2005b), Latvia (Salmane & Brumelis 2008), Netherland (Gabryš *et al.* 2008),

Norway (Slomian *et al.* 2005), Poland (Kaczmarek *et al.* 2011), Romania (Kontschán & Ujvári 2008), Russia (Makarova 2011), Slovakia (Fend'a & Mašán 2009), Sweden (Bengtsson *et al.* 1997).

Diagnosis. Dorsum with deeply incised schizodorsal shield. Tips of peritremes surpass base of setae j1, opisthonotal region of dorsal shield with 15 pairs of setae; at the base of coxa IV, metapodal punctiform organ with 6–8 pores. Tectum with median elongated projection, plumose apically.

Distribution. Holarctis (Salmane & Kontschán 2005b).

Remarks. Live in litter of forests, moss and decaying wood. Widespread in Europe, but this is the first record from Serbia and Kosovo.

Veigaia exigua (Berlese, 1917)

(Figure 1)

Cyrtolaelaps exiguus Berlese, 1916: 300.

Veigaia exigua: Salmane & Kontschán 2005a: 50, Manu 2013: 10, Fend'a & Mašán 2009: 192, Kaczmarek *et al.* 2009: 183.

Material examined. *Carpathian Basin*: Romania, Buru from moss 11.VII.1998 HE. Romania, Piatra Caprei from moss 20.VIII.1999 MF. Romania, Abrud from moss 25.XI.2003 CSCS. *Balkan Peninsula*: Serbia, Đerdap Planine, Moșna from oak forest litter 12.X.2006 DL, KJ, MD.

Published records. Austria (Wissuwa *et al.* 2012), Belgium (Skubała *et al.* 2013), British Isles (Skorupski & Luxton 1998), Canary Islands - Spain (Moraza & Peña 2005), Croatia (Kaczmarek *et al.* 2009), Finland (Huhta & Niemi 2003), Germany (Maraun *et al.* 2001), Hungary (Salmane & Kontschán 2005a), Italy (Farrier 1957), Latvia (Salmane 1999), Norway (Slomian *et al.* 2005), Poland (Skorupski 2009), Romania (Manu 2013), Russia (Makarova 2011), Slovakia (Fend'a & Mašán 2009), Sweden (Lundqvist 1974).

Diagnosis. Dorsum with slightly incised schizodorsal shield. Opisthonotal region of dor-

sum with 12 pairs of setae. All dorsal setae simple with subequal length. Central projection of tectum elongated, densely pilose. Metapodal punctiform organ at base of coxae IV absent.

Distribution. Europe (Karg 1993).

Remarks. Live in forest litter, moss and mostly in the upper layer of soils. This is the first record from Serbia.

***Veigaia kochi* (Trägårdh, 1901)**

(Figure 1)

Cyrtolaelaps kochi Trägårdh, 1901: 61.

Veigaia kochi: Ambros 1987: 103, Kontschán & Ujvári 2008: 348, Fend'a & Mašán 2009: 192.

Material examined. *Carpathian Basin*: Romania, Munții Rodnei from moss 27.VI.2005–01.VII.2005 OK, MD, KJ. Romania, Râmetea from detritus 20.IX.2000 SZT. Slovakia, Rakovec from litter 03.VII.1991 MS. Slovakia, Dobšiná from moss 03.VII.1991 UC. Slovakia, Rakovec from soil 03.VII.1991 MS.

Published records. Austria (Ambros 1995), British Isles (Evans 1955), Germany, Canada, United States (Farrier 1957), Hungary (Ambros 1987), Latvia (Salmane & Brumelis 2008), Norway (Slomian *et al.* 2005), Poland (Kamczyc & Gwiazdowicz 2009), Romania (Kontschán & Ujvári 2008), Russia (Klimov 1998), Slovakia (Fend'a & Mašán 2009), Sweden (Bengtsson *et al.* 1997).

Diagnosis. Dorsum with separate podonotal and opisthonotal shields. Podonotal shield with 21 pairs of setae. Posterior margin of ventral shield with two pairs of setae, punctiform organ with five or six distinct pits, sternal shield well sclerotized, central projection of tectum elongated and brush-like.

Distribution. Palearctis (Karg 1993).

Remarks. Live in litter, moss and in various microhabitats, like caves, nests of ants and birds, decaying wood.

***Veigaia nemorensis* (C. L. Koch, 1839)**

(Figure 1)

Gamasus nemorensis Koch, 1839: 18.

Veigaia nemorensis: Salmane & Kontschán 2005b: 15, Fend'a & Mašán 2009: 192, Manu 2013: 10.

Material examined. *Carpathian Basin*: Croatia, Drenovac stream-side 21.IV.2004 KJ. Croatia, Novo Zvecevo 22.IV.2004 KJ. Croatia, Štrmac from forest litter 21.IV.2004 KJ. Hungary, Aggtelek, Baradla cave, leaf litter and humus 21.III.2013 AM, PL. Hungary, Csákberény, Szappanos valley from decaying wood 29.V.2013 HE, SZGY. Hungary, Kiskunhalas from poplar tree litter 27.V.2012 LE. Hungary, Pilisszentkereszt from oak litter 07.VI.2012 HE, SZGY. Hungary, Nagykovácsi, Vöröspocsolya from hornbeam litter 18.IX.2012 HE, SZGY. Hungary, Salgótarján from oak litter 04.IV.2013 AD, KZ, HE, SZGY. Hungary, Salgótarján from decaying wood and moss 04.IV.2013 AD, KZ, HE, SZGY. Hungary, Salgótarján, Kercsegtető from beech litter 04.IV.2013 AD, KZ, HE, SZGY. Romania, Lunca de Sus from moss from altitude 1250 m a.s.l. 19.IX.2002 JZS, HE. Romania, Lunca de Sus from pine litter 19.VII.2002 JZS, HE. Romania, Băile Balványos from beech litter and soil 21.IX.2002 JZS, HE. Romania, Băile Tușnad 21.IX.2002 JZS, HE. Romania, Munții Retezat, near La Beci from altitude 1200–1300 m a.s.l. from moss 07.IX.2003 OA. Romania, Munții Bihorului, Nof Canda 25.VII.2003 PT. Romania, Harghita-Băi from moss on a pine tree 29.VII.2004 HE. Romania, Harghita-Băi, near Pokat Resort from moss 30.VII.2004 HE. Romania, Borsa from litter and soil 27.VI.2005–01.VII.2005 OK, KJ, MD. Romania, Rona de Sus, Hera, Zalom valley from decaying tree 27.VI.2005–01.VII.2005 OK, KJ, MD. Romania, Transylvania from *Sphagnum*, without exact date, PT. Romania, County Harghita, Orotva, „Lengő kö” from moss 05.VII.2001 HE. Romania, County Harghita, Orotva, bank of the pârau Török, from pine litter 05.VII.2001 HE. Romania, County Harghita, Orotva, bank of the pârau Ászok, from moss 05.VII.2001 HE. Romania, County Harghita, Orotva, „Lengő kö”, from moss on decay-

- ing wood 05.VII.2001 HE. Romania, „Nagymokos” from moss 10.VII.1998 MF. Romania, Județul Alba, Râmetea, towards Piatra Secuiului, from altitude 1128 m a.s.l., from soil 07.VII.1998 HE. Romania, County Harghita, 2 km away from Pasul Vlăhița from *Sphagnum* 01.VIII.1999 OA. Romania, County Alba, Buru, valley of brook Râmetea from moss 11.VII.1998 HE. Romania, County Alba, Râmetea, towards Piatra Secuiului, from altitude 700 m a.s.l. from moss 07.VII.1998 HE. Romania, County Alba, 5 km away from Cornești, Arieș vale from moss 11.VII.1998 HE. Romania, Băile Balványos, north side of the mountain, from altitude 400 m a. s. l. from moss 01.VIII.1999 OA. Romania, Lacul Sfânta Ana, north side of the mountain, from altitude 600 m a.s.l. 01.VIII.1999 OA. Romania, County Alba, Runc, "Runki-szoros" from moss 10.VII.1998 HE. Romania, County Harghita, 2 km away from Pasul Vlăhița from moss 01. VIII.1999 OA. Romania, near Lacul Sfânta Ana, from *Sphagnum* 01.VIII.1999 OA. Romania, Piatra Caprei from moss 20.VIII.1999 MF. Romania, Abrud from moss, 25.XI.2003 CSCS. Romania, Maramureș Mts, Borșa-Băile Borșa, stream over the village from moss 26.IX.2006 DL, KJ, MD. Romania, Kolozs Cluj county Negreni, left side-stream of the Crisul Repede River, beech litter and moss 06.X.2006 MD. Romania, County Maramureș, Maramureș Mts, Borșa-Băile Borșa, Stanchii spring from moss 22.V.2007 CsCs, DL, KJ, MD. Romania, County Maramureș, Maramureș Mts, Borșa-Băile Borșa, Vinișor valley from mixed forest 22.V.2007 CSCS, DL, KJ, MD. Romania, County Maramureș, Rodna Mts, Săcel, Iza spring in pine forest from decaying wood and forest litter 23.V.2007 CSCS, DL, KJ, MD. Romania, County Maramureș, Maramureș Mts, Poienile de Sub Munte, Socolău valley from mixed forest litter 25.V.2007 CSCS, DL, KJ, MD. Romania, Paștera Urșilor, near Vislo village from dry forest 24.X.2003 PT. Romania, Turda, Cheile Turzii from moss 20.VIII.1999 MF. Romania, Râmetea, Piatra Secuiului from moss 20.IX.2000 SZT. Slovakia, Dobsina from moss 03.VII.1991 UC. Slovakia, Rakovec from moss 03.VII.1991 MS. Slovakia „Klastromka fent” 02.VII.1991 MS. Slovakia, Hrabusice-Podlesok, Suchá Belá from litter 02.VII.1991 MS. Slovakia, Hrabusice-Podlesok, Suchá Belá from decaying wood 02.VII. 1991 MS. *Balkan Peninsula*: Albania, Periferi Malesia from littoral bush, limestone rocks, gallery forest 04.X.2005 MD. Albania, Okol, near a brook, mixed forest 06.VII.2003 EJ, KJ, MD, FZ. Macedonia, Šar Planina, Gorno Jelovce from beech forest, moss of soil 15.X.2006 DL, KJ, MD. Macedonia, Belasica Planinite Kolešino platan-beech forest litter 18.X.2006 DL, KJ, MD. Macedonia, Maleševski Planina, Berovo beech forest litter 18.X.2006 DL, KJ, MD. Macedonia, Osogovski Planina, Sasa, valley of a sidebrook of the Kamenica Stream, from moss of soil 19.X.2006 DL, KJ, MD. Macedonia, Valandovsko Basin, Furka, temporary puddle from moss 18.X.2006 DL, KJ, MD. Serbia, Đerdap Mts, Majdanpek, mixed beech forest litter 13.X.2006 DL, KJ, MD. Serbia, Krajište Mts, Vučedelce, brooks in beech forest above the village from moss 20.X.2006 DL, KJ, MD. *Alps*: Austria, Altenmarkt an der Triesting, moss from soil 11.X.2003 SZGY.
- Published records.* Austria (Čoja & Bruckner 2006), Belgium (Skubała *et al.* 2013), British Isles (Evans 1955), Franconia, New Hampshire, Germany, Norway, Sweden, France, Netherlands (Farrier 1957). Finland (Huhta & Niemi 2003), Hungary (Salmane & Kontschán 2005b), Italy (Sabbatini Peverieri 2011), Iran (Moradian *et al.* 2011), Ireland (Arroyo *et al.* 2010), Latvia (Salmane 1999), Poland (Kamczyc & Gwiazdowicz 2009), Romania (Manu 2013), Russia (Makarova 2011), Slovakia (Fend'a & Mašan 2009), Spain (Moraza & Peña 2005, Moraza 2007), Sweden (Lundqvist *et al.* 2000), Turkey (Çobanoğlu 2001).
- Diagnosis.* Dorsal shield separated, opisthotal shield with 19 pairs of setae. Tectum with two small spines at median projection and apex terminates in two or three short pilose appendages. Two pairs of presternal plates present, anal shield wider than long.
- Distribution.* Palearctis (Karg 1993).

Remarks. Live in decaying wood, litter, and moss, nest of ants and rodents. This is widely distributed species with first records for Albania, Macedonia and Serbia.

***Veigaia planicola* (Berlese, 1892)**

(Figure 1)

Cyrtolaelaps nemorensis var. *planicola* Berlese, 1892: fasc. 63.

Veigaia planicola: Fend'a & Mašán 2009: 193, Kaczmarek *et al.* 2009: 183, Szabó *et al.* 2009: 149, Manu *et al.* 2013: 35.

Material examined. Carpathian Basin: Croatia, Novo Zvecevo streamside 22.IV.2004 KJ. *Balkan Peninsula:* Macedonia, Šar Planina, Tetovo, Popova Šapka, brook in alpine grassland from moss 15.X.2006 DL, KJ, MD. Macedonia, Sveti Naum, near springs and spring lake above the Ohrid Lake, from litter 16.X.2006 DL, KJ, MD.

Published records. Austria (Wissuwa *et al.* 2012), Belgium (Skubała *et al.* 2013), British Isles (Skorupski & Luxton 1998), Croatia (Kaczmarek *et al.* 2009), Germany (Koehler 2000), Hungary (Szabó *et al.* 2009), Italy, Sicily (Farrier 1957), Poland (Kaczmarek *et al.* 2011), Romania (Manu *et al.* 2013), Slovakia (Fend'a & Mašán 2009), Spain (Moraza & Peña 2005, Moraza 2007), Sweden (Lundqvist 1974), Turkey (Bayram & Çobanoğlu 2005).

Diagnosis. Dorsal shield separated, genital and ventral shields not fused, punctiform organ pores on soft membranous cuticule, median elongated part of tectum brush-like, at base with a large spine.

Distribution. Europe and Asia (Karg 1993).

Remarks. Live in moss, forest litter and upper layer of soils. This is the first record from Macedonia.

***Veigaia propinqua* Willmann, 1936**

(Figure 1)

Veigaia propinqua Willmann, 1936: 251.

Veigaia propinqua: Fend'a & Mašán 2003: 188, Pavlova 2009: 113, Minodora 2012: 394.

Material examined. Carpathian Basin: Slovakia, Rakovec from moss 03.VII.1991 MS. *Balkan Peninsula:* Serbia, Krajište Planine, Surdulica beech forest litter 20.X.2006 DL, KJ, MD.

Published records. Austria (Farrier 1957), British Isles (Evans 1955), Bulgaria (Pavlova 2009), Poland (Gabryš *et al.* 2008), Romania (Minodora 2012), Slovakia (Fend'a & Mašán 2003).

Diagnosis. Dorsal shield separated, podonotum with 22 pairs of setae. Median part of tectum with elongated projection, terminates apically slightly pilose. Anterolateral corners of ventral shield fused with peritremal shields.

Distribution. Europe (Karg 1993).

Remarks. Previous records are from caves and litter of forests. This is the first record from Slovakia.

***Veigaia transisalae* (Oudemans, 1902)**

(Figure 1)

Cyrtolaelaps transisalae Oudemans, 1902: 28.

Veigaia transisalae: Szalay 1931: 27, Fend'a & Mašán 2009: 193, Minodora 2012: 394.

Material examined. Carpathian Basin: Romania, Transylvania from *Sphagnum*, without exact date, PT. Romania, Harghita-Băi, near Pokat Resort from moss 30.VII.2004 HE. Romania, Munții Retezat, near La Beci from altitude 1200-1300 m a.s.l. from moss 07.IX.2003 OA. Romania, Băile Tușnad 21.IX.2002 JZs, HE. Romania, „Nagymokos” from peat moss 10.VII.1998 MF. Romania, 2 km away from Pasul Vlăhița, from *Sphagnum* 01.VIII.1999 OA. Romania, Băile Bălványos, north side of the mountain, from altitude 400 m a. s. l. from moss 01.VIII.1999 OA. Romania, Lacul Sfânta Ana, north side of the mountain, from altitude 600 m a.s.l. 01.VIII.1999 OA. Romania, Borsa from litter and soil 27.VI.2005-01.VII.2005 OK, KJ, MD. Romania, Abrud from moss 25.XI.2003 CSCS. Slovakia, Rakovec from moss 03.VII.1991 MS. Slovakia „Klastromka fent” 02.VII.1991 MS. *Balkan Peninsula:* Albania, Akol rodonines, from

altitude 1300 m a.s.l., from moss 22.VII.1996 HE. Macedonia, Šar Planina, Tetovo, Popova Šapka, brook in alpine grassland, from moss 15.X.2006 DL, KJ, MD. Serbia, Đerdap Planine, Mošna from oak forest litter 12.X.2006 DL, KJ, MD. Serbia, Krajište Mts, Vučedelce, brooks in beech forest above the village from moss 20.X.2006 DL, KJ, MD. *Alps*: Austria, Altenmarkt an der Triesting, moss from soil 11.X.2003 SZGY.

Published records. Belgium (Skubala *et al.* 2013), British Isles (Evans 1955), Latvia (Salmane 2007), Poland (Kamczyc & Gwiazdowicz 2009), Romania (Minodora 2012), Russia (Makarova 2011), Slovakia (Fend'a & Mašán 2009), Netherland, France, Germany, Hungary, Madeira Island, Austria, Switzerland (Farrier 1957).

Diagnosis. Dorsal shield with slightly bent incision laterally, opisthonotal region with 19 pairs of setae. Dorsal setae j1, j4, z5 and r3 two or three times longer than other setae. Tectum median elongated projection Y-shaped and serrate apically, at the base a triangular spine emerges.

Distribution. Europe (Karg 1993).

Remarks. Live in decaying wood, coniferous and deciduous litter and moss. This is the first record from Austria, Albania, Serbia and Macedonia.

***Veigaia uncata* Farrier, 1957**

(Figure 1)

Veigaia uncata Farrier, 1957: 82.

Material examined. *Carpathian Basin*: Romania, 2 km away from Pasul Vlăhița, from *Sphagnum* 01.VIII.1999 OA.

Published records. Australia, Papua New Guinea (Halliday 1990), East Africa (Hurlbutt 1979), North Carolina (Farrier 1957), Russia (Bregetova 1961).

Diagnosis. Dorsal shield deeply straight incised laterally, opisthonotal shield with 21 pairs of setae; j1, j4, z5 and r3 at least two times longer

than other setae. Tectum with Y-shaped median projection, serrate apically. Punctiform organs at base of coxae IV consisting of three rows of pits.

Distribution. Cosmopolitan.

Remarks. This species has a wide distribution from America to Europe and East Africa. Live in litter and moss. This is the first record from Romania.

Genus *Gamasolaelaps* Berlese, 1904

***Gamasolaelaps tuberculatus* Bregetova, 1961**

(Figure 1)

Gamasolaelaps tuberculatus Bregetova, 1961: 95.

Gamasolaelaps tuberculatus: Didyk 2013: 14.

Material examined. *Carpathian Basin*: Romania, Abrud from moss 25.XI.2003 CSCS. Slovakia, Rakovec from soil 03.VII.1991 MS.

Published records. Latvia (Salmane 2001), Russia (Bregetova 1961), Ukraine (Didyk 2013).

Diagnosis. Dorsum with separate podonotal and opisthonotal shields. Opisthonotal region with 11 pairs of setae. Femur of the legs IV with small tuberculum. Dorsal shield with smooth edges. Ventral shield with 7 pairs of setae. Tectum has 3 apex with each almost the same size.

Distribution. East Europe.

Remarks. Little information is available about its distribution and ecology. Previous records are from forest litter, decaying matter and bird nests. This is the first data from Romania and Slovakia.

DISCUSSION

Numerous works are published on the family *Veigaiidae* Oudemans, 1939, mainly from Europe, but the Balkan Peninsula remained less explored. Altogether nine species were collected in ten countries from the Carpathian Basin and the Balkan Peninsula. Most of the records are from

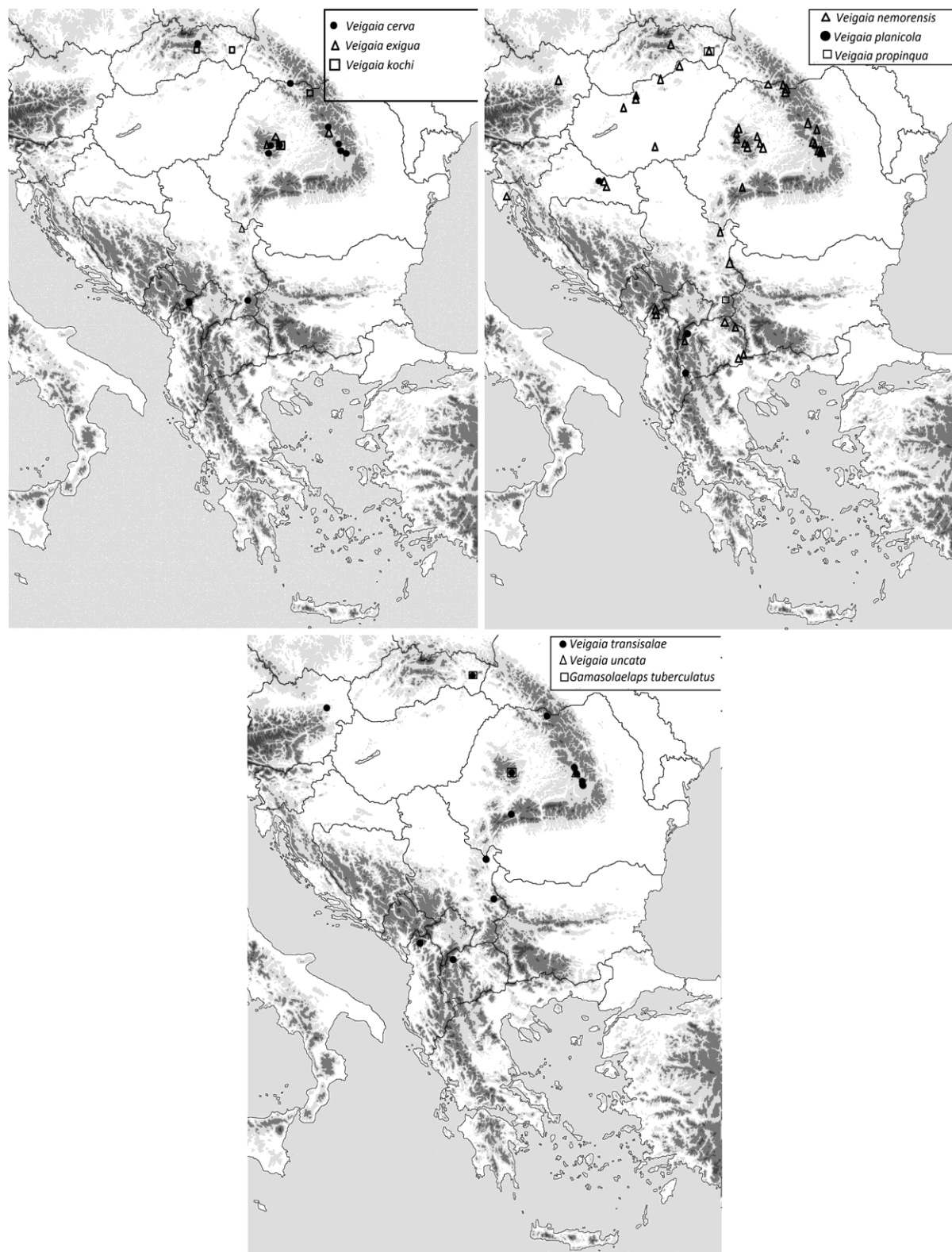


Figure 1. Occurrences of veigaiid species in the Carpathian Basin and in the Balkan Peninsula

Romania. The majority of the species are distributed in the Palaearctic region. The most frequent species, with 70 records was *Veigaia nemorensis*, a common species with wide distribution. *Veigaia transisalae* was also frequent in the soil samples and on the basis of previous data it is distributed in Europe and now we have reported here new occurrences for the Balkan Peninsula; this species is new for the fauna of Albania, Macedonia and Serbia. *Veigaia cerva* was also reported mainly from the European region, and we have provided here the first records for Serbia and Kosovo in the Balkan Peninsula. *Veigaia planicola* was known from Europe and Asia. In the present study it has been reported for the first time from the Balkans, from Macedonia. Interestingly, *Veigaia uncata* hasn't been reported from Europe until now, previous data are from very different regions, like Australia, East-Africa, North-Carolina and Russia. *Gamasolaelaps tuberculatus* seemed to be an Eastern European species, but for the first time, it has been collected from the Carpathian Basin.

Summarizing, we reported new species occurrences for seven countries and with these records the number of known species is increased in Albania from zero to two, in Austria from nine to ten, in Kosovo from zero to one, in Macedonia from zero to three, in Romania from nine to eleven, in Serbia from zero to four and in Slovakia from thirteen to fifteen species.

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