

**Contribution to the knowledge of the harvestmen
of Hungary (Arachnida: Opiliones)**

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Abstract – New data on the distribution of *Ischyropsalis hellwigii* (PANZER, 1794), *Paranemastoma quadripunctatum* (PERTY, 1833) and *Trogulus tingiformis* C. L. KOCH, 1848 are given with comments on several other harvestman species from Hungary. The occurrence of *Opilio dinaricus* ŠILHAVÝ, 1938 is confirmed, and the adventive *O. canestrinii* (THORELL, 1876) is recorded for the first time from Hungary. With 3 figures.

Key words – Arachnida, Opiliones, Hungary, faunistics, new data, *Opilio canestrinii*.

INTRODUCTION

The last check-list on the harvestmen of Hungary was made by KOMPOSCH (2004) with 33 species and short notes on earlier research. Since 2004 many new data became available on frequent and rare species as well (LENGYEL *et al.* 2004, LENGYEL 2005, LENGYEL & MURÁNYI 2006), and MURÁNYI (2005) reported *Amilenus aurantiacus* (SIMON, 1881) for the first time from Hungary. However, there are still many regions of the country where the harvestman fauna is poorly studied or even unstudied. Of several further species the known distribution ranges are close to the country borders, so some may actually occur in Hungary.

The literature contains numerous doubtful records. Examination of voucher specimens is rather difficult as the original papers often do not detail depository of material. A part of the specimens may be located in the Hungarian Natural History Museum, another part at the Eötvös Loránd

University (ELTE) in Budapest, but quite possibly a portion has already been lost. These collections should be checked in the future.

The aim of this paper was to give a final report on my studies on the harvestman fauna of Hungary during the last few years. From 2008 I am working in the Diptera collection of the Hungarian Natural History Museum on the family Phoridae, therefore it is uncertain if I could continue the work on Opiliones.

In the present paper I give additional data on rare or little known species, some comments on other species, show what should be done in the future on the harvestman fauna of Hungary, and report one species new to Hungary.

MATERIALS AND METHODS

The harvestman specimens were collected by hand, soil-sifter or pitfall traps between 1995 and 2010. The identification of the species is based on MARTENS' (1978) key. The material is deposited in the Hungarian Natural History Museum (HNHM). In the case of new records the collectors' names are abbreviated as follows: DÁNYI LÁSZLÓ (DL); HORVÁTH EDIT (HE), KUTASI CSABA (KCs); LENGYEL GÁBOR DÁNIEL (LGD); MERKL OTTÓ (MO); MURÁNYI DÁVID (MD); NÉMETH TAMÁS (NT).

RESULTS

Family Cladonychiidae

Holoscotolemon jaqueti (CORTI, 1905)

New data – 1 male, 1 female: Mátra, Heves county, Mátraháza, Tüندی-forrás, streamside, 21.V.2008, leg. LGD.

Notes – The region of the occurrence was erroneously given by LENGYEL *et al.* (2004). It was found not in the Mátra, but in the Cserhát (not Cserehát). This fact makes this data more interesting, because the Cserhát is low mountains or rather hills (highest point 575 m), with mainly dry oak (*Quercus*) and hornbeam (*Carpinus*) forests, but *H. jaqueti* was up to now known as a montane or submontane hygrophilous species (AVRAM & DUMITRESCU 1969, MARTENS 1978).

Family Nemastomatidae

Nemastoma bidentatum ROEWER, 1914 (s. l.)

New data – 1 female: Bakony, Veszprém county, Nagykapornak, Orbányosfa, Foglár-patak, 3.X.2004, leg. DL; 2 males, 1 female: Őrség, Vas county, Felsőszölnök 21.X.2006, leg. LGD; 1 male: Gyűrűfű, Baranya county, Öreg bükkfa, 20.V.2006, leg. DL.

Notes – The shape of chelicera and the number of apophyses on pedipalpus in many cases vary on specimens collected from the same locality. These features are used to identify the subspecies of *N. bidentatum* (GRUBER & MARTENS 1968). SCHÖNHOFER & HOLLE (2007) found the same phenomenon in *N. bidentatum* in the Czech Republic and in Germany and noted that the subspecies division of *N. bidentatum* needed revision. Up to now we know data only from Transdanubia (western part of Hungary), contrary to the distribution map in MARTENS (1978).

Nemastoma lugubre (MÜLLER, 1776)

New data – 2 males, 1 female: Aggteleki-karszt, Borsod-Abaúj-Zemplén county, Bódvarákó, near the catholic church, under the bridge 24.VIII.2006, leg. LGD; 1 male: Börzsöny, Pest county, Királyrét, Szén-patak-völgye, 15.VII.2006, leg. LGD; 1 male, 1 female: Karancs-Medves, Nógrád county, Rónabánya, Bagó-kő, 19.IX.2002 leg. DL; 1 female: Karancs-Medves, Nógrád county, Rónabánya, Szilvaskő-puszta felé, 20.IX.2002, leg. DL; 1 male: Mátra, Nógrád county, Mátraszele, Akó-fej, 19.IX.2002, leg. DL; 1 female: Bakony, Veszprém county, Pénzesgyőr, fáslegelő, 13.X.2008, leg. MO; 1 male: Pilis-Visegrádi-hg., Pest county, Pilisszentkereszt, Kétbükkfa-nyereg, 28.X.2008, leg. MO; 1 female: Vértes, Fejér county, Gánt, Fáni-völgy, 2.XI.2008, leg. NT.

Notes – The new data on *N. lugubre* from the Transdanubian Mountains (Bakony and Vértes) refute LENGYEL & MURÁNYI's (2006) supposition that *N. bidentatum* and *N. lugubre* may be vicariant species.

Paranemastoma quadripunctatum (PERTY, 1833)

New data – 1 male, 1 female: Őrség, Vas county, Felsőszölnök, west from Halál-völgy, 21.X.2006, leg. LGD.

Notes – We have no recent data from Bakony and Kőszeg Mts despite many samplings in the area including the same localities from where it was reported (KOLOSVÁRY 1936, SZALAY 1951). KOMPOSCH (2004) reported it from the Sopron Mts.

Family Trogulidae

Trogulus tingiformis C. L. KOCH, 1848

New data – 1 male, 1 female: Balaton-felvidék, Veszprém county, Hegymagas, Szent György-hegy, 1.V.1995, leg. KCs; 1 male, 1 female: same locality, 30.VI.1995, leg. KCs.

Notes – Few records are available of this species. It may be more common in Hungary than indicated by collecting data up to now.

Family Ischyropsalididae

Ischyropsalis hellwigi (PANZER, 1794)

New data – 1 female: Őrség, Vas county, Orfalu, Cvikli-erdő, Fekete-tó mellett, talajcsapda [near Fekete-tó, pitfall trap], 28.IX–25.X.2010, leg. LGD.

Notes – *I. hellwigi* was mentioned from Hungary for the first time by LENDL (1894) without exact locality. Later KOLOSVÁRY (1936) reported it from Western Hungary, Kőszeg and Sopron Mts. KOMPOSCH (2004) collected it in the Sopron Mts, too. MARTENS (1978) reported it from the region “Őrség” from a cave near Szakonyfalu (“Höhle bei Szakonyfalu”). This record should be doubtful, because caves do not exist in Őrség. With this new data the presence of this species is confirmed in this region of Hungary.

Family Phalangiidae

Opilio canestrinii (THORELL, 1876)

New data – 1 male, 1 female: Kőszeg, Vas county, Széchenyi-park, on brick wall, 20.VII.2008, leg. LGD; 1 female: Szombathely, Vas county, Pelikán-park, Gyöngyös-patak mentén, házfalról [along Gyöngyös stream, on brick wall], 3.VIII.2010, leg. LGD.

Notes – *O. canestrinii* was easily mistakable for *O. transversalis* ROEWER, 1956 due to their inadequate descriptions until GRUBER (1984, 1988) clarified their diagnosis. Apart from the features mentioned by GRUBER (1984) I found marked difference between the penises in lateral view. For *O. transversalis* see fig. 32 in GRUBER 1984, for *O. canestrinii* see Fig. 1.

O. canestrinii is a synanthropic harvestman (GRUBER 2000) living on walls and plants in built-up areas. It is supposed that this species crowds out the populations of *Opilio parietinus* (DE GEER, 1778) and *Opilio saxatilis* C. L. KOCH, 1839 wherever it occurs (HILLYARD 2000). It seems that in Hungary it cannot spread out as fast as in Western Europe. This assumption is strengthened by the fact that after the finding of *O. canestrinii* at Kőszeg in 2008 I checked the possible habitats in the centre of the nearest town, Szombathely and could not find the species until two years later at the same locality.

This species is new to the fauna of Hungary. With these records the number of harvestman species from Hungary raises to 35.

Opilio dinaricus ŠILHAVÝ, 1938

New data – 1 male, 1 female: Mecsek Mts, [Baranya County], Komló-Zobákpuszt, Völgyé-s-patak, 26.VI.2006, leg. MD; 1 male, 1 female: Mecsek Mts., Baranya county, Magyaregregy, Vár-völgy, Máré-vár, 26.VI.2006, leg. MD.

Notes – Since its first mention from Várpalota (RAFALSKI 1962) this is the second reliable record of this species. The record of *Opilio parietinus* SILHAVY (sic!) mentioned by KOLOSVÁRY (1935) from Magyaregregy may refer to *O. dinaricus*.

Family Sclerosomatidae

Leiobunum rotundum (LATREILLE, 1798)

New data – 1 male, 1 female: Börzsöny Mts, Pest county, Szokolya, Királyrét, Spartacus-ház hídja [bridge near the Spartacus house], 15.VII.2006, leg. LGD; 1 male: Gerecse, Komárom-Esztergom county, Agostyán, Arborétum feletti talajszelvény [soil profile above the Arboretum], 30.VIII.2006, leg. LGD; 1 female: Vasi-Soproni-síkság, Vas county, Meggyeskovácsi, Balozsa, Molnárszög, 21.VII.2008, leg. LGD.

Leiobunum rupestre (HERBST, 1799)

New data – 2 males: Aggteleki-karszt, Borsod-Abaúj-Zemplén county, Bódvarákó, side of Esztramos Hill, 24.VIII.2006, LGD; 4 males: Őrség, Vas county, Felsőszőlnök, in the forest, 21.X.2006, leg. LGD;

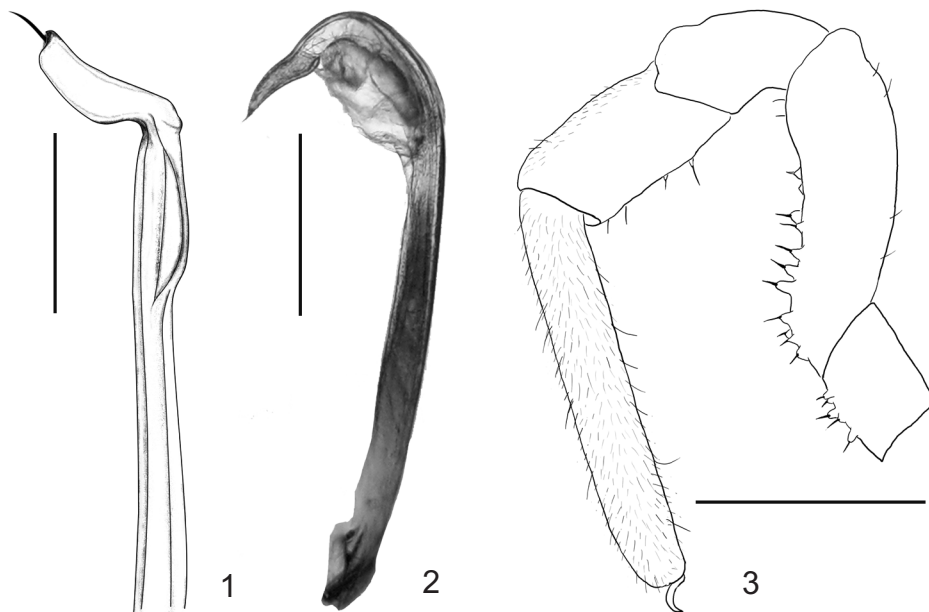
Notes – The penis in case of the specimens collected near Felsőszőlnök is strongly curved backward (Fig. 2).

Nelima sempronii SZALAY, 1951

New data – 1 male, 1 female: Budapest, XVIII. kerület, Podhorszky utca, 1.IX.2006, leg. LGD; 4 males, 3 females: Gerecse, Komárom-Esztergom county, Agostyán, Természetes Életmód Alapítvány tábora [camp of Natural Lifestyle Foundation], 28.VIII.2006, leg. LGD; 1 male, 2 females: Kisalföld, Győr-Moson-Sopron county, Lébény, tölgyes [oak stand], 2.IX.1998, leg. HE; 2 males, 1 female: Őrség, Vas county, Szalafő, Őserdő, 28.IX.2006, leg. LGD; 1 male: Őrség, Vas county, Szalafő, Nyúzó-völgy, Zala-meder, 28.IX.2006, leg. LGD; 2 males: Őrség, Vas county, Őriszentpéter, Keserűszer, Nemzeti Park kutató-

háza [research house of the National Park], 28.IX.2006, leg. LGD; 1 male: same locality, 20.X.2006, leg. LGD; 1 male: Őrség, Vas county, Farkasfa, Állami-erdő, 8.X.2006, leg. LGD; 1 female: Őrség, Vas county, Szalafő, Templomszer, 08.X.2006, leg. LGD; 3 juveniles: Vasi-Soproni-síkság, Vas county, Meggyeskovácsi, házfal [house wall], 20.VII.2006, leg. LGD.

Notes – The author found that every specimen in the HNHM under the name *Nelima silvatica* SIMON, 1879 actually belongs to *N. sempronii*.



Figs 1–3. 1 = Distal part of the penis of *Opilio canestrinii* (THORELL, 1876) in lateral view, 2 = penis of *Leiobunum rupestre* (HERBST, 1799) collected near Felsőszölnök in lateral view, 3 = pedipalpus in medial view of the type specimen of *Odiellus lendli* (SØRENSEN, 1894). Scale = 0.5 mm

Notes on doubtful data and taxa

Anelasmacephalus cambridgei (WESTWOOD, 1874) – LOKSA (1968, 1984) reported it from the Bükk Mts. The distribution of *A. cambridgei* is western European, Atlantic. According to KOMPOSCH (2004) the specimens mentioned by LOKSA (1968, 1984) may belong to *Anelasmacephalus hadzii* MARTENS, 1978. The presence of this species needs confirmation.

Odiellus lendli (SØRENSEN, 1894) – This species was described from Hungary in the paper of LENDL (1894) without any indication of the locus typicus. Later KOLOSVÁRY (1929, 1965) reported it from Kőszeg and Árpás. It is missing from the check-list by KOMPOSCH (2004). I examined the type specimen in HNHM. It is a subadult specimen in a rather bad condition, without genitalia. The pedipalps (Fig. 3) are with less tubercles on femur, and without swelling on the basal part of the tarsus. There are five labels inside the vial of the specimen. The data on them are rather contradictory. Label 1 – “*Acantholophus* sp. *indescr.* Lendl No. 47” on backside: “Die Lokalität war nicht aufgegeben”; Label 2 – “ARACHNIDAE MUS. NAT. HUNG. *Acantholophus Lendlii* Sør. Hungaria. Lendl. *Typus.*”; Label 3 – “ARACHNIDAE MUS. NAT. HUNG. *Odiellus Lendli* Soer. Árpás. *Typus.* Lendl.”; Label 4 – “2020/1929 *Odiellus Lendli* Soer. *Typus!* Det. Dr. Lendl Adolf”; Label 5 – “Árpás? lg. Dr. Lendl Adolf”.

The origin of the locality datum “Árpás” (a village in Kisalföld, Győr-Moson-Sopron county) is questionable. Maybe KOLOSVÁRY found the meaning of “No. 47” on Label 1 and published it (KOLOSVÁRY 1929), but this is only a theory. If we accept the validity of “Árpás” as the place of collecting we should regard this species as a member of the Hungarian fauna.

Trogulus aquaticus (SIMON, 1879) – LOKSA (1961) mentioned it from the vicinity of Vindornyaszőlős in the Keszthely Mts. According to SCHÖNHOFER & MARTENS (2008) *T. aquaticus* lives only in the island of Corsica. In the collection of the HNHM there are some specimens from different parts of the Carpathian Basin labelled as “*T. aquaticus* SIMON”. These specimens appear to be very close to the males of *T. tingiformis* in habitus and size.

Nemastoma wiehlei ROEWER, 1951 – ROEWER (1951) described this species from a single female near Simontornya based on the colour pattern of the carapax as distinguishing feature, but this feature is quite variable in the genus *Paranemastoma*. According to MARTENS (1978) *Nemastoma wiehlei* ROEWER, 1951 is a synonym of *Paranemastoma silli* (HERMAN, 1871), which is a Carpathian endemic species. KOMPOSCH (2004) treated it as *P. silli* in the checklist of Hungarian Opiliones. I think this record cannot refer to *P. silli*, but rather *P. quadripunctatum* because of the distribution of the species. Examination of the type specimen could clarify the status.

Paroligolophus agrestis (MEADE, 1855) – KOLOSVÁRY (1965) reported it from Lónya. *P. agrestis* is a western European, Atlantic species. Checking of the voucher specimen is needed.

“*Mitopus palliatus* LATREILLE, 1798” – LENDL (1894) mentioned it from three localities from Hungary. *Phalangium palliatum* LATREILLE, 1798 is a synonym of *Mitopus morio* FABRICIUS, 1799 (ROEWER 1923), therefore I think this mention of “*M. palliatus*” refers to *M. morio*, too.

Nelima nigripalpis SIMON, 1879 – The female specimens deposited in HNHM identified by KOLOSVÁRY (1929, 1965) as *N. nigripalpis* belong to *Leiobunum tisciae* AVRAM, 1968. The identification was based on the shape of the receptaculum seminis. The penis is missing from all male specimens and they lost their colour, therefore they cannot be identified.

Nelima glabra (HADŽI, 1931) – In the collection of HNHM every specimen lacks its penis. Their habitus does not resemble *Leiobunum rupestre*, which is a senior synonym of this name according to MARTENS (1978). These specimens were published in KOLOSVÁRY (1929, 1965) and may belong to *L. tisciae*, too.

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