

A QUICK SCAN OF THE SPIDER FAUNA IN THE SURROUNDINGS OF PËRMET, ALBANIA (ARACHNIDA, ARANEAE) – PRELIMINARY REPORT

Peter J. van Helsdingen

European Invertebrate Survey – Nederland, P.O. Box 9517, 2300 RA Leiden, Netherlands (helsdingen@naturalis.nl)

&

Steven IJland

Gabriel Metzstraat 1, 2316 AJ Leiden (sijland@gmail.com)

ABSTRACT

During an inventory in Albania in the spring of 2014, 154 species of spiders of 27 families were collected and partly identified. At least 42 species are recorded for the first time for Albania. A small number of specimens remain under study as they could not be linked to a described species with certainty. The Albanian spider fauna proves to be less well investigated than of most other Balkan countries and needs much attention in the future.

Key words: Albania, Balkan fauna, inventory, new species for Albania

INTRODUCTION

This is a preliminary report on the spiders collected during an inventory of the region around Përmet in the province Gjirokastër, Albania. During a two weeks collecting trip in this region by the two authors together with Yaco Joven from the Netherlands (responsible for the landscape photographs), and Blerina Vrenozi and Arisa Cane, both from the University of Tirana, Albania, we inventorised several localities in southern Albania, mostly in the near surroundings of Përmet. The localities visited are listed below together with some general characteristics of the sites, the geographic positions, and the date of the visit.

Actual fieldwork was carried out between 22 April and 3 May 2014. The variety in habitats we could explore was relatively low: riverbeds with pebbles and stones and vegetation on the banks, fields with hedges and shrubs, patches of forest on steeper slopes. The Forest Reserve Bredhi i Hotovës (in the Bredhi i Hotovës National Park) appeared to be the most natural area with an impressive stand of Macedonian Fir (*Abies borisii-regis*), an endemic species of the Balkan. Apart from the riverbeds, most of which are kept in natural state by the regular flooding, many other areas showed severe agricultural pressure. Most of the fields were clearly frequently grazed by sheep and thus the vegetation was low, without flowering herbs and devoid of variation in structure, one of the requisites for a varied spider fauna. Only *Tordylium* spec. was in bloom at most places and is apparently a plant not liked by sheep or other cattle. Despite this state of degradation of many fields we could obtain a fair number of species.

The Albanian spider fauna is relatively poorly known if compared with surrounding countries. Fauna Europaea (Van Helsdingen 2015) lists 378 species for Albania, which is low in comparison with Macedonia (801), Serbia plus Kosovo plus Montenegro (739), Croatia (721), Bulgaria (1024), and Greece (including Crete) (1225). Only Bosnia-Herzegovina scores very low (171), which may be due to absence of arachnologists. Of course the countries mentioned cannot be compared as simply as that because they are of different size, comprise different habitats, and may have different climates. Greece has a much wider geographic range from the west coast of the Balkan mainland to the coast of Asian Turkey.

The goal of our inventory was to obtain distribution data of Mediterranean spider species so as to fill in the relative gap of faunistic knowledge for Albania. We had assumed the Balkan fauna to be relatively well-known so we were surprised to be confronted with quite a number of taxonomic difficulties which made a certain identification impossible. Some of these problems are highlighted in the chapter “Remarks on Genera and Species”. When and where possible we will come back on the observed problems in the future. Apparently the fauna on the west-side of the Balkan needs much more attention and we intend to continue our study in the region.

Number of species

The number of species collected adds up to 154 and belong to 27 families. A relatively large percentage appears to be recorded for the first time for Albania, 27%. Of the identified species, 42 are newly recorded. We also have a number of species which could not yet be identified with certainty (8, indicated with cf and some of which might be new to Albania), or not at all (also 8, only the generic names are given). Comments on some species



Figure 1. Map of Albania (inset) and the visited localities in Gjirokastër.

are given in a separate chapter. The specimens are stored respectively in the collections of Naturalis Biodiversity Centre at Leiden, Netherlands, and in the private collection of the second author.

Our collecting efforts were not meant to lead to quantitative results, so the numbers of specimens per species are not mentioned in this report, except when a species gets more attention for reasons of rareness or taxonomic complexity.

COLLECTING LOCALITIES

1 Gjirokastër: Bënje (Spa), E of Përmet, grassy area with shrubs; *Arbutus unedo*, *Cercis siliquastrum*, *Tordylium* spec.; 22.iv.2014 (N 40°14.528' E 20°25.760'). Hand-collecting, sweeping, beating.



Figure 2. Locality 1.

2 Gjirokastër: Forest Reserve Bredhi i Hotovës, N of Përmet, near Warden's Lodge, mixed broadleaf and coniferous forest; 23.iv.2014 (N 40°20.485' E 20°22.712'). Hand-collecting, sweeping, beating.

3 Gjirokastër: Forest Reserve Bredhi i Hotovës, N of Përmet, E of Warden's Lodge, open field and forest margin; 23.iv.2014 (N 40°20.846' E 20°23.456'). Hand-collecting, sweeping, beating.

4 Gjirokastër: N of Përmet; along Lumi Vjosa, stony riverbed and vegetation belt with *Platanus orientalis*; 24.iv.2014 (N 40°12.951' E 20°23.022'). Hand-collecting, sweeping, beating.

5 Gjirokastër: Përmet, along river Vjosa N of bridge, stones in river bed and on vegetation along riverside; 24.iv.2014 and 27.04.2014 (N 40°14.203' E 20°21.160'). Hand-collecting, sweeping.

6 Gjirokastër: Strëmbec, SE of Përmet, footpath to reservoir through area with shrubs and trees and grassy patches, and around reservoir, 25.iv.2014 (N 40°10.305' E 20°28.036'). Hand-collecting, sweeping, beating.



Figures 3 and 4. Locality 6.

- 7 Gjirokastër: Këlcyrë, slope above bridge near waterfactory S of river Vjosa; very steep slope with unstable stony debris and coniferous trees; 26.iv.2014 (N 40°17.770' E 20°09.540'). Hand-collecting, sweeping, beating.
- 8 Gjirokastër: Përmet, slope above village, mixed forest along footpath; 27.iv.2014 (N 40°13.504' E 20°21.398'). Hand-collecting, sweeping, beating.
- 9 Gjirokastër: Përmet slope above village, coniferous forest; 28.iv.2014 (N 40°13.504' E 20°21.398') Hand-collecting, sweeping, beating.
- 10 Gjirokastër: Anë Vjosë near Qesarat, along river Vjosa, N-side; stony riverbed and vegetation along path; 29.iv.2014 (N 40°23.315' E 19°51.113'). Hand-collecting, sweeping, beating.
- 11 Korcës: surroundings of Leskovik and Kolonjë, along small rivulet, grassland, shrubs, trees (*Juglans regia*, *Broussonetia papyrifera*, *Cotinus coggygria*); 30.iv.2014 (N 40°08.991' E 20°33.746'). Hand-collecting, sweeping, beating.
- 12 Gjirokastër: Bënje (Spa), E of bridge across river; limestone pavement with shrubs and trees (*Paliurus spina-christi*, *Broussonetia papyrifera*, *Arbutus unedo*, *Cotinus coggygria*) and open spaces; 1.v.2014 (N 40°14.415' E 20°26.280'). Hand-collecting, sweeping, beating.



Figure 5. Locality 12.

- 13 Gjirokastër: steep slope W of Përmet with remnants of flood-control dam; shrubs and trees; 2.v.2014 (N 40°13.682' E 20°20.664'). Hand-collecting, sweeping, beating.
- 14 Gjirokastër: branch of river Vjosa towards Bënje Spa; stony riverbed; 3.v.2014 (N 40°13.000' E 20°24.478'). Hand-collecting, sweeping, beating.
- 15 Gjirokastër: E of Bënje Spa, slope with stones on soil and some limestone pavement; 3.v.2014 (N 40°14.771' E 20°26.460'). Hand-collecting, sweeping, beating.
- 16 Gjirokastër: Përmet; around hotel; 22-27.iv.2014 (N 40°13.474' E 20°21.322'). Hand-collecting.



Figure 6. Locality 15.

LIST OF COLLECTED SPECIES

AGELENIDAE

Inermocoelotes spec.: a single female specimen most likely belonging in *Inermocoelotes*, but so far could not be matched with any of the known species. Locality 2; ♀.

Maimuna vestita (C.L. Koch, 1841): the number of known records is low; distribution from Italy eastward to Greece and Turkey and also from Croatia, Bulgaria and Ukraine. See under remarks below for a picture of the epigyne. Localities 4, 13, 16; ♀.

Tegenaria spec.: A single male specimen was collected, but so far could not be matched with any of the known species. There is a high level of endemism of this genus in the Balkans, and for several described species the male is not known yet (Bolzern et al, 2013). Further investigations might still match the male to its female counterpart, else it will be described as a new species in a future paper. Locality 3; ♂.

Tegenaria parietina (Fourcroy, 1785): **New for Albania**; wide-spread in Central- and Western-Europe, lacking in most of Scandinavia and Russia, range extending further eastward into southern Asia. Locality 2; ♂♀.

AMAUROBIIDAE

For comments on this genus, see under “Remarks on Genera and Species”, below.

Amaurobius cf *kratochvili* Strand, 1938: **New for Albania**? Two large female specimens belonging to

Amaurobius are characterized by the notched median plate of the epigyne. We have not found any other species with this character and even though the shape of the median plate differs slightly from that of our specimens we provisionally identify them with this species. *A. kratochvili* was described from two caves on the Island Brac south of Split in the Adriatic Sea, Croatia, but there is no indication of the distance from the entrance of the actual collecting sites. Locality 3; ♀.

Amaurobius phaeacus Thaler & Knoflach, 1998: so far apparently restricted to mainland Greece and Albania. Locality 3, 7; ♀.

Amaurobius cf *erberi* (Keyserling, 1863) or *Amaurobius* cf *pallidus* L. Koch, 1868; our specimens (4♀) would fit *A. erberi* as to size, but the vulval structure is different in that the mesal extensions of the sperm ducts are not visible in our specimens (e.g. figs of Pesarini 1991 and Loksa 1969 in Nentwig et al. 2015); our specimens fit into the size range of *A. pallidus* but, again, differ in the vulval structure in that the sperm ducts are connecting mesally in our specimens but not in *A. pallidus* (fig. of Loksa 1969 in Nentwig et al. 2015). Locality 2, 3; ♀.

Amaurobius spec.: a single female specimen most likely belonging to *Amaurobius* so far could not be matched with any of the known species; the dorsal pattern of the opisthosoma is characteristic. Probably a new species which will be described following further study. Locality 13; ♀.

ANYPHAENIDAE

Anyphaena sabina L. Koch, 1866: Mediterranean, extending into Asia up to Azerbaijan. Localities 1, 8, 12, 13; ♂♀.

ARANEIDAE

Agalenatea redii (Scopoli, 1763): a common, thermophilous Palaearctic species. Localities 1, 4, 7, 8, 9, 12, 13, 14; ♂♀.

Araneus sturmi (Hahn, 1831): a wide-spread Palaearctic species. Locality 2, 7, 8, 13; ♂♀.

Araniella inconspicua (Simon, 1874): **New for Albania**; wide-spread in Palaearctic region. Localities 2, 7; ♂♀.

Araniella opisthographa (Kulczynski, 1905): distributed from Europe into Asia. Localities 1, 11, 12; ♂.

Araniella proxima (Kulczynski, 1885): disjunct Holarctic distribution said to be restricted to mountainous areas in the temperate zone, but despite that not known from Switzerland, the Italian alps, Czech Republic, and Serbia, but recorded again from Albania, Macedonia, and Bulgaria (not an exhaustive overview of its

distribution!); possibly an indication that the species is rare or not always properly recognized. Locality 1; ♀.

Cyclosa conica (Pallas, 1772): in Europe the most common and widely spread representative of the genus.

Locality 7, 8, 9, 12; ♀.

Cyclosa sierrae Simon, 1870: mediterranean (Portugal, Spain, Italy, Albania, Greece) and eastward through Ukraine and southern Russia into Asia. Localities 4, 6, 8, 12, 13; ♂♀.

Gibbaranea bituberculata (Walckenaer, 1802): **New for Albania**; Palaearctic distribution, more common in warmer regions than in the North. Localities 1, 7, 8, 9, 11, 13, 15; ♂♀.

Gibbaranea gibbosa (Walckenaer, 1802): **New for Albania**; distributed over most of Europe, eastward into Asia. Localities 9, 12; ♂.

Hypsosinga albovittata (Westring, 1851): **New for Albania**; Palaearctic distribution, occurring in most countries of Europe. Locality 1; ♂.

Hypsosinga sanguinea (C. L. Koch, 1844): **New for Albania**; Palaearctic distribution, occurring in most countries of Europe. Locality 1; ♂.

Mangora acalypha (Walckenaer, 1802): Palaearctic distribution, more common in the South. Localities 1, 4, 6, 7, 8, 13; ♂♀.

Singa nitidula C. L. Koch, 1844: **New for Albania**; Palaearctic distribution, occurring in most countries of Europe. Locality 10; ♀.

Zilla diodia (Walckenaer, 1802): distribution covering most countries of Europe and extending as far as Azerbaijan. Localities 1, 4, 6, 7, 8, 9, 11, 12, 13; ♂♀.

CLUBIONIDAE

Clubiona comta C. L. Koch, 1839: known from nearly all countries in Europe. Localities 2, 7; ♂♀.

Clubiona genevensis L. Koch, 1866: thermophilous species known from most European countries. Localities 6, 8, 9, 14; ♂♀.

Clubiona leucaspis Simon, 1932: **New for Albania**; a western European and western Mediterranean species, more common in the South. Localities 8, 13; ♀.

DICTYNIDAE

Brigittea civica (Lucas, 1850): **New for Albania**; a rare, western European species. Locality 16; ♂.

Dictyna arundinacea (Linnaeus, 1758): common species with Holarctic distribution. Localities 2, 3; ♂♀.

Lathys humilis (Blackwall, 1855): **New for Albania**; common species with Palaearctic distribution. Localities 1, 6, 7, 8, 11, 13; ♂♀.

Marilynia bicolor (Simon, 1870): limited distribution in Europe, more common in the South, lacking in northern countries. Localities 4, 5; ♂.

Nigma flavescens (Walckenaer, 1830): **New for Albania**; western, central and Mediterranean Europe species of infrequent occurrence. Localities 1, 7, 8, 9, 12; ♂♀.

Nigma puella (Simon, 1870): species of western- European and mediterranean distribution, more common in the South. Localities 1, 8, 12, 15; ♂♀.

DYSDERIDAE

Dasumia chyzeri (Kulczynski, 1906): **New for Albania**; One male was collected in the forest of Bredhi i Hotovës, mixed broadleaf and coniferous forest. So far restricted to the Balkan region (Croatia, Serbia, Kosovo, Montenegro) and so Albania perfectly fits into this pattern. Locality 2; ♂.

Harpactea spec.: In the forest of Bredhi i Hotovës, at locality 2, four female *Harpactea* were collected, belonging to two species. These females could not be matched to a known species yet, it is very difficult with the existing literature to identify females without males. Also in Bredhi i Hotovës, at nearby locality 3, a male *Harpactea kulczynskii* was collected, a species from which the female is not yet described. So it is very well possible that one of the two species is the female of *Harpactea kulczynskii*. However, since the two species were not collected together with the male, we choose to leave them undescribed. Locality 2, 1♀. (species a), 3♀. (species b).

Harpactea kulczynskii Brignoli, 1976: One male was collected in the forest of Bredhi i Hotovës. The species is known from Albania and Greece. Females are not described from this species, see the remarks under *Harpactea* spec. Locality 3; ♂.

Harpactea nausicaae Brignoli, 1976: One male was collected in the forest of Bredhi i Hotovës, four males and six females from locality 7, Gjirokastër, Këlcyrë. Restricted to Albania, Macedonia, and mainland Greece. Locality 3, 7; ♂♀.

EUTICHURIDAE

Cheiracanthium cf. ienisteai Sterghiu, 1985: **New for Albania**; species known from Romania and Macedonia. See under remarks, below. Localities 6, 12, 14; ♂♀.

Cheiracanthium mildei L. Koch, 1864: Holarctic, in Europe not known from northern countries. Locality 11; ♀.

GNAPHOSIDAE

Aphantaulax cincta (L. Koch, 1866): Mediterranean and Central-European distribution. Localities 6, 12; ♂.

Berlandina corycraea (O.P.-Cambridge, 1874): **New for Albania**; described after a male from Corfu and presently known from mainland Greece and adjacent islands (Ionian and Saronic Islands). Locality 6; ♂.

Drassodes lapidosus (Walckenaer, 1802): Palearctic species, reported from most European countries. The epigyne from the female from locality 13 is of the transition form as described by Bolzern and Hänggi (Bolzern & Hänggi 2006). These females cannot be determined as either *D. lapidosus* or *D. cupreus* with certainty. We chose to assign the specimen to *D. lapidosus* as this is the more common species and a male was also collected from locality 15. Locality 13, 15; ♂♀.

Haplodrassus signifer (C.L. Koch, 1839): wide-spread Holarctic species. Localities 1, 12; ♀.

Zelotes balcanicus Deltshev, 2006: within Europe restricted to Romania, Bulgaria, Macedonia, Albania, and Greece, also recorded from Israel. Locality 6; ♀.

Zelotes cingarus (O. P.- Cambridge, 1874): European records available from Albania, Macedonia, Greece (mainland and archipelagos and Crete), and Bulgaria, extending eastward into Asia through Turkey. Localities 8, 12, 15; ♀.

Zelotes hermani (Chyzer, 1897): Ranging from Italy through eastern mediterranean and Central-Europe into Asia. Locality 16; ♀.

AHNNIIDAE

Iberina candida (Simon, 1875): **New for Albania**; a thermophilous species in western and Central-Europe. Locality 12; ♀.

LINYPHIIDAE

Agynta rurestris (C. L. Koch, 1836): very common Palaearctic species. Localities 5, 12; ♀.

Asthenargus bracianus Miller, 1938: **New for Albania**; a single female specimen is assigned to this species. See under Remarks, below. Locality 7; ♀.

Centromerus acutidentatus Deltshev, 2002: restricted to the Balkan (Serbia, Montenegro, Albania, Macedonia, Bulgaria). Locality 7; ♀.

Ceratinella major Kulczynski, 1894: **New for Albania**; Distributed in Central-Europe and eastward into Russia. Locality 7; ♀.

Frontinellina frutetorum (C.L. Koch, 1834): Palaearctic species, extremely common in the mediterranean region, more rare on higher latitudes and lacking in northern countries (Scandinavia, northern Russia). Localities 1, 4, 6, 7, 8, 9, 11, 12, 15, 16; ♂♀.

Gonatium hilare (Thorell, 1875): **New for Albania**; western and Central-Europe, no records from Scandinavia and European Russia. Locality 2; ♀.

Heterotrichoncus pusillus (Miller, 1958): **New for Albania**; few records and disjunct distribution from western Europe to Russia, probably due to the small size of the specimens easily escaping attention. See under Remarks, below. Locality 3; ♀.

Lepthyphantes magnesiae Brignoli, 1979: **New for Albania**; So far only known from Greece. Close to *L. notabilis*, and most likely not belonging to *Lepthyphantes* sensu stricto. Localities 4, 7; ♂♀.

Linyphia hortensis Sundevall, 1830: **New for Albania**; Palaearctic distribution. Locality 2; ♀.

Linyphia mimonti Simon, 1884: **New for Albania**; recorded from Italy and Greece (including archipelagos and Crete), and Asia Minor. Localities 1, 2, 11; ♀.

Microneta viaria (Blackwall, 1841): Common, Holarctic distribution. Locality 3; ♀.

Neriene peltata (Wider, 1834): **New for Albania**; widely spread over Europe and the eastern part of the Palaearctic Region. Locality 2; ♂♀.

Pelecopsis elongata (Wider, 1834): Occurring over most of Europe, but lacking on the Iberian Peninsula. Localities 7; ♀.

Scutpelecopsis krausi (Wunderlich, 1980): **New for Albania**; presently known from Italy, Macedonia, Greece, Bulgaria, and eastward in southern European Russia, reaching as far as Georgia and Armenia, also known from Israel. Locality 6; ♀.

Tapinocyba cf. mitis (O. P.-Cambridge, 1882): **New for Albania**; a single female from Forest Reserve Bredhi i Hotovës is assigned to this genus. See under Remarks, below. Locality 2; ♀.

Tenuiphantes floriana (van Helsdingen, 1977): Described from Romania, and since then recorded from Bulgaria, Serbia, Montenegro and Albania. Locality 2; ♂♀.

Tenuiphantes herbicola (Simon, 1884): **New for Albania**; a mediterranean species (Spain, southern France, Corsica, Italy, Sardinia, Sicily, Croatia, and Greece (Lefkada)). Localities 4, 7, 8, 9, 13; ♀.

Trichoncus cf. sordidus Simon, 1884: we collected two female specimens which provisionally are identified as this species (or close to it). See under Remarks, below. Locality 6; ♀.

Walckenaeria abantensis Wunderlich, 1995; **New for Albania**; *Walckenaeria abantensis* was described from Asian Turkey and subsequently recorded from the Aegean island Lesbos, Greece (Bosmans et al. 2009), close to the Turkish west coast. See under Remarks, below. Locality 2; ♀.

LIOCRANIDAE

Sagana rutilans Thorell, 1875: the only earlier indication of the occurrence of this species in Albania is a personal communication by Blerina Vrenozi (see page on this species in Nentwig et al. 2015). Locality 3; ♀.

LYCOSIDAE

Alopecosa accentuata (Latireille, 1817): Palaearctic species recorded from most European countries but absent in the North. Also not recorded from Croatia, Serbia, Montenegro and Macedonia. Locality 2; ♀.

Alopecosa albofasciata (Brullé, 1832): Common species with mediterranean distribution, range extending into Asia. Localities 1, 6, 7, 8, 9, 11, 12, 13, 15; ♂♀.

Alopecosa pentheri (Nosek, 1905): **New for Albania**. Recorded from the Balkan, Italy, Ukraine, Turkey. Locality 12; ♀.

Arctosa cinerea (Fabricius, 1777): Along rivers and banks of freshwater bodies; Palaearctic species, known from all European countries. Localities 4, 5, 10; ♂♀.

Aulonia albimana (Walckenaer, 1805): Palaearctic species known from nearly all European countries. Localities 2, 3, 5; ♂♀.

Geolycosa vultuosa (C. L. Koch, 1838): **New for Albania**; Recorded from the Balkan and adjacent countries (Hungary, Romania, Ukraine, southern European Russia, Turkey), range extending into Asia. Locality 6; ♀.

Lycosa praegrandis C.L. Koch, 1836: Eastern species, known from southern Balkan and Turkey, and from Ukraine, Central- and South European Russia, range extending into Asia. Locality 12; ♀.

Pardosa alacris (C.L. Koch, 1833): Not recorded from the Iberian Peninsula, but occurring in most parts of Europe but absent again from the northern countries. Localities 2, 3; ♂♀.

Pardosa cibrata Simon, 1876. Frequent in southern Europe, but not recorded from the former Yugoslavian republics. Locality 8; ♀.

Pardosa hortensis (Thorell, 1872): Palaearctic species, recorded from most European countries but absent in the North. Localities 1, 3, 6, 11; ♀.

Pardosa proxima (C. L. Koch, 1847): Palaearctic species, wide-spread in Europe but lacking from most countries around the Baltic Sea (Denmark, Poland, Lithuania, Estonia, Scandinavia). Localities 6, 16; ♂♀.

Pardosa tatarica (Thorell, 1875): Palaearctic species, in Europe Mediterranean, Ukraine, and eastward into southern European Russia, Caucasus, and Turkey. Localities 4, 5, 6, 8, 10, 12, 13; ♂♀.

Piratula lattans (Blackwall, 1841): Distributed all over Europe with the exception of Sandinavia and northern European Russia. Locality 6; ♂.

Trabea paradoxa Simon, 1876: Restricted to the Mediterranean Region of Europe, not (yet) recorded from the Asian part of Turkey. Locality 7; ♀.

MIMETIDAE

Ero tuberculata (DeGeer, 1778): **New for Albania**; widespread in Europe, but rarely found. Localities 4, 13; ♀.

MITURGIDAE

Zora nemoralis (Blackwall, 1861): Palaearctic and known from nearly all European countries. Locality 2; ♀.

Zora parallela Simon, 1878: **New for Albania**; disjunct distribution, probably because it is relatively rare; recorded from western Europe and most of the Mediterranean and Ukraine, but lacking in most of Central-Europe, but present again in Finland and Sweden. Locality 3; ♂.

Zora spinimana (Sundevall, 1833): A common Palaearctic species with a wide distribution all over Europe. Locality 2; ♂.

OECOBIIDAE

Oecobius maculatus Simon, 1870: **New for Albania**; found in Mediterranean Region and also in Hungary and Romania. Localities 12, 16; ♂♀.

OXYOPIDAE

Oxyopes heterophthalmus (Latireille, 1804): Western Europe and Mediterranean Region, absent from northern countries. Locality 14; ♂.

PHIODROMIDAE

Philodromus rufus Walckenaer, 1826: common species with Holarctic distribution, lacking in the Baltic states, Finland and northern European Russia. Localities 1, 6, 7, 8, 9, 11; ♂♀.

Pulchellodromus pulchellus (Lucas, 1846): Mediterranean distribution (but also in Austria), including Turkey. Locality 13; ♂.

PHOLCIDAE

Holocnemus pluchei (Scopoli, 1763): Mediterranean species, occurring from the Iberian Peninsula to Turkey, presently spreading northward. Localities 4, 7, 16; ♂♀.

PHIRUROLITHIDAE

Phrurolithus festivus (C.L. Koch, 1835): Palaearctic species established in nearly all European countries. Locality 7; ♂.

Phrurolithus pullatus Kulczyński, 1897: **New for Albania**; occurring from Germany eastward up to Ukraine and Central and East European Russia; on the Balkan known from Bulgaria and Macedonia; Albania fits well into this distribution pattern; range extending into Asia. The record from Germany (Wiehle, 1967) is doubtful and cannot be confirmed since the original material seems to be lost. It is assumed that Wiehle may have made a mistake with labelling (P. Jaeger, pers. com.). Localities 4, 13; ♂♀.

Phrurolithus szilyi Herman, 1879: Curious distribution: Iberian Peninsula, Central-Europe (Austria, Czech Republic, Slovakia, Hungary, Romania), and most Balkan countries; lacking in southern France, Italy, Slovenia, and Croatia, all of them well-investigated. Localities 1, 6, 12, 15; ♂♀.

SALTICIDAE

Aelurillus v-insignitus (Clerck, 1757): Common Palaearctic species found over all of Europe. Localities 12, 13, 15; ♂♀.

Ballus chalybeius (Walckenaer, 1802): Common species in most of Europe except in the northern parts; range extending into Asia. Locality 11; ♀.

Carrhotus xanthogramma (Latreille, 1819): Palaearctic species, distributed from West- to Central-Europe and West- to East-Mediterranean, not in northern countries. Localities 1, 6; ♂♀.

Chalcoscirtus infimus (Simon, 1868): Recorded from western Europe and the Mediterranean Region, apparently not found in Central-Europe; reported from Romania and Bulgaria and Balkan countries, southern and eastern European Russia; range extending into Asia. Locality 12; ♀.

Cyba algerina (Lucas, 1846): Thermophilous species with mediterranean distribution, Romania through Ukraine to southern and eastern European Russia, range extending into Asia. Locality 12, 15; ♂.

Evarcha jucunda (Lucas, 1846): Mediterranean species with disjunct distribution more to the North (Germany, Slovakia, Romania). Localities 6, 7, 8, 12, 15; ♂♀.

Heliophanus auratus C. L. Koch, 1835: A common *Heliophanus* species with Palaearctic distribution. Locality 2; ♂.

Heliophanus cupreus (Walckenaer, 1802): As common as *H. auratus* and equally distributed. Locality 6; ♀.

Heliophanus kochii Simon, 1868: Common species, restricted, as far as Europe is concerned, to West- and Central-Europe and the whole Mediterranean Region. Localities 5, 7, 13; ♂♀.

Heliophanus lineiventris Simon, 1868: Palaearctic species, distributed from West- to Central-Europe and West- to East-Mediterranean, not in northern countries. Locality 8; ♂♀.

Heliophanus melinus L. Koch, 1867: Distribution pattern in West- and Central-Europe with many white areas; apparently less often collected. Localities 4, 5; ♂.

Heliophanus patagiatus Thorell, 1875: Palaearctic species, distributed from West- to Central-Europe and West- to East-Mediterranean, not in northern countries. Localities 5, 10; ♂♀.

Heliophanus simplex Simon, 1868: Species recorded from Central-Europe and eastern Mediterranean Region (Balkan and Turkey). Localities 6, 7, 11; ♂.

Heliophanus tribulosus Simon, 1868: Palaearctic species, not in northern countries, more common in the South, range extending into Asia. Localities 6, 8, 12, 13, 15; ♂♀.

Macaroeris nidicolens (Walckenaer, 1802): Distribution restricted to West- and Central-Europe and the Mediterranean Region, but lacking in Asian Turkey. Localities 12, 15; ♂.

Neon rayi (Simon, 1875): **New for Albania**; Distribution restricted to West- and Central-Europe and the Mediterranean Region, but lacking in Turkey; apparent absence in some countries such as Switzerland and Romania may be due to by its small size or special habitat. Locality 6; ♂.

Pellenes nigrociliatus (Simon, 1875) **New for Albania**; Restricted to West- and Central-Europe and the Mediterranean Region, lacking in northern Europe. Locality 1, 6; ♂.

Philaeus chrysops (Poda, 1761): Palaearctic species, not in northern countries, more common in the South. Localities 12, 15; ♂♀.

Phlegra bresnieri (Lucas, 1846): Mediterranean distribution, but also In the Czech Republic, Romania, and Bulgaria. Localities 1, 5, 11; ♂♀.

Phlegra fasciata (Hahn, 1826): A Palaearctic species widely distributed over Europe, but lacking in northern part of Russia. Locality 1; ♀.

Pseudeuophrys obsoleta (Simon, 1868): Palaearctic species, in Europe not recorded from Scandinavia and the Iberian Peninsula but present in eastern Mediterranean Region, inclusive Turkey and extending further East into Asia. Localities 4, 7, 8, 12; ♂♀.

Sitticus penicillatus (Simon, 1875): **New for Albania**: A Palaearctic species distributed in Western- and Central-Europe and the eastern Mediterranean Region; absent from the Iberian Peninsula and Turkey. Locality 1; ♀.

SCYTODIDAE

Scytodes thoracica (Latreille, 1802): Holarctic distribution, but not recorded from northern regions (Scandinavia, Baltic States, northern Russia). Well-known inhabitant of houses in the temperate zone, but here collected from needle litter below coniferous trees. Locality 7; ♂♀.

SPARASSIDAE

Micrommata ligurina (C. L. Koch, 1845): Distributed in the Mediterranean Region and north of the Balkan in Romania, range extending into Asian Turkey. Localities 1, 2, 4; ♂♀.

TETRAGNATHIDAE

Metellina mengei (Blackwall, 1869): Recorded from nearly all European countries, range extending into Asia but not (yet) found in Asian part of Turkey. Localities 7, 8, 9; ♂♀.

Metellina merianae (Scopoli, 1763): Recorded from nearly all European countries, range extending into Asia. Locality 4; ♀.

Tetragnatha extensa (Linnaeus, 1758): Holarctic species, established in nearly all European countries. Locality 5; ♂♀.

Tetragnatha nigrita Lendl, 1886: Palaearctic species, but lacking in northern regions. Locality 5; ♂♀.

THERIDIIDAE

Asagena phalerata (Panzer, 1801): Palaearctic species, wide-spread over Europe. Locality 1; ♂.

Crustulina scabripes Simon, 1881: Mediterranean species including Turkey, Azerbaijan, and Israel. Locality 9; ♂.

Dipoena melanogaster (C.L. Koch, 1837): Recorded from most West- and Central-European countries, range extending into western Asia (Azerbaijan). Localities 1, 7, 8, 11; ♂♀.

Dipoena nigroreticulata Simon, 1879: **New for Albania**; See under remarks, below. Locality 12; ♀.

Enoplognatha afrodite Hippa & Oksala, 1983: Records from the eastern Mediterranean region and north of the Balkan form Romania; not known from the Iberian peninsula. Locality 7, 9; ♂♀.

Enoplognatha quadripunctata Simon, 1884: Mediterranean species, but lacking in Italy, Sardinia and Sicily, range extending to Azerbaijan. Locality 4; ♂.

Episinus truncatus Latreille, 1809: Palaearctic distribution, common in Europe but not recorded from northern regions such as most of Scandinavia and northern Russia. Locality 7; ♀.

Euryopis episinoides (Walckenaer, 1847): A southern European species with isolated records from Belgium (stated to have been imported) and the Czech Republic (not found again on the original site since; Stano Pekar, pers. com.) and an extremely isolated record from China. Localities 5, 6, 11, 16: ♂.

Lasaeola convexa (Blackwall, 1870): **New for Albania**; Mediterranean from Iberian Peninsula to Greece and northward to Romania, not recorded from Turkey. Localities 7, 11; ♂.

Paidiscura pallens (Blackwall, 1834): **New for Albania**; A common European species, but lacking in northern European Russia and with a striking distribution gap on the Balkan (only recorded from Bulgaria). Locality 2; ♂.

Pholcomma gibbum (Westring, 1851): Not common, widely spread through most of Europe. Locality 7; ♀.

Robertus mediterraneus Eskov, 1987: **New for Albania**; A southern European species. See under remarks below. Locality 2; ♂.

Simitidion simile (C.L. Koch, 1836): Commonly distributed over most of Europe. Localities 1, 4, 6, 7, 8, 9, 11, 12, 13, 14; ♂♀.

Steatoda paykulliana (Walckenaer, 1805): A South-European species with a tendency to spread northward. Locality 1, 15; ♀.

Steatoda triangulosa (Walckenaer, 1802): A cosmopolitan species recorded from many European countries probably originating from the Mediterranean Region. Locality 16; ♀.

Theridion spec. melanurum-group: Three different species were collected that could not be identified.

Distinction between the species of this species-complex remains too difficult for reliable identification and we therefore prefer to mention the presence of specimens in our collecting samples belonging to this group of species rather than publish a wrong identification for Albania. Epigynes of the three species are depicted in the remarks section. Species A, locality 6, 7, 8, 13; mf. Species B, locality 6, 16; ♀; Species C, locality 13; ♀.

Theridion adrianopoli Drensky, 1915: **New for Albania**; recorded from the Balkan region and Turkey. Localities 8, 16; ♀.

Theridion cinereum Thorell, 1875: Very disjunct distribution in Central and eastern Europe and on the Balkan.
Locality 4; ♀.

THOMISIDAE

Ozyptila spec. One female was collected that could not be assigned to any known species. Locality 7; ♀.

Ozyptila confluens (C.L. Koch, 1845): Mediterranean (but not on the Iberian peninsula), in the East up to Bulgaria and Romania; eastward recorded from Syria. Locality 1; ♀.

Pistius truncatus (Pallas, 1772): **New for Albania**; not frequently found species with Palaearctic distribution.
Locality 8; ♂.

Synema globosum (Fabricius, 1775): West-, Central- and Mediterranean-Europe where it is extremely common.
Locality 1; ♂.

Synema plorator (O. P.-Cambridge, 1872): recorded from the eastern Mediterranean and eastern Central-Europe, range extending into Central-Asia. Locality 1, 2; ♂♀.

Thomisus onustus Walckenaer, 1805: Palaearctic distribution, but absent from northern countries. Locality 13;
♀.

Tmarus piger (Walckenaer, 1802): central and southern Palaearctic distribution. Localities 9, 11; ♂.

Tmarus piocardi (Simon, 1866): **New for Albania**; Mediterranean distribution, including Turkey. Locality 3,
7, 8, 13; ♂♀.

Xysticus acerbus Thorell, 1872: Widespread European to Central Asian species, not frequently found. Locality
1; ♀.

Xysticus kochi Thorell, 1872: a single female; conspecific with or close to *Xysticus kochi*, which is evenly
distributed over Europe. Locality 1; ♀.

Xysticus lanio C.L. Koch, 1835. **New for Albania**; recorded from most European countries, presence in Albania
was to be expected. Locality 8; ♀.

Xysticus robustus (Hahn, 1832): A rare species, recorded from West-, Central- and Mediterranean-Europe, range
extending into Asia. Locality 13; ♀.

Xysticus thessalicus Simon, 1916: **New for Albania**; described from Greece (Saloniki) to which other localities
in Greece (Corfu, Arta in Epirus, Leonidion on the Peloponesos), Croatia, Turkey, and Israel could be
added subsequently. Albania perfectly fits into this range. Localities 1, 6, 12; ♂♀.

ULOBORIDAE

Uloborus walckenaerius Latreille, 1806: western and Central-Europe, more common in the Mediterranean
region, lacking in some northern countries and Scandinavia. Localities 1, 4, 12, 13; ♂♀.

REMARKS ON GENERA AND SPECIES

Maimuna vestita (C.L. Koch, 1841)

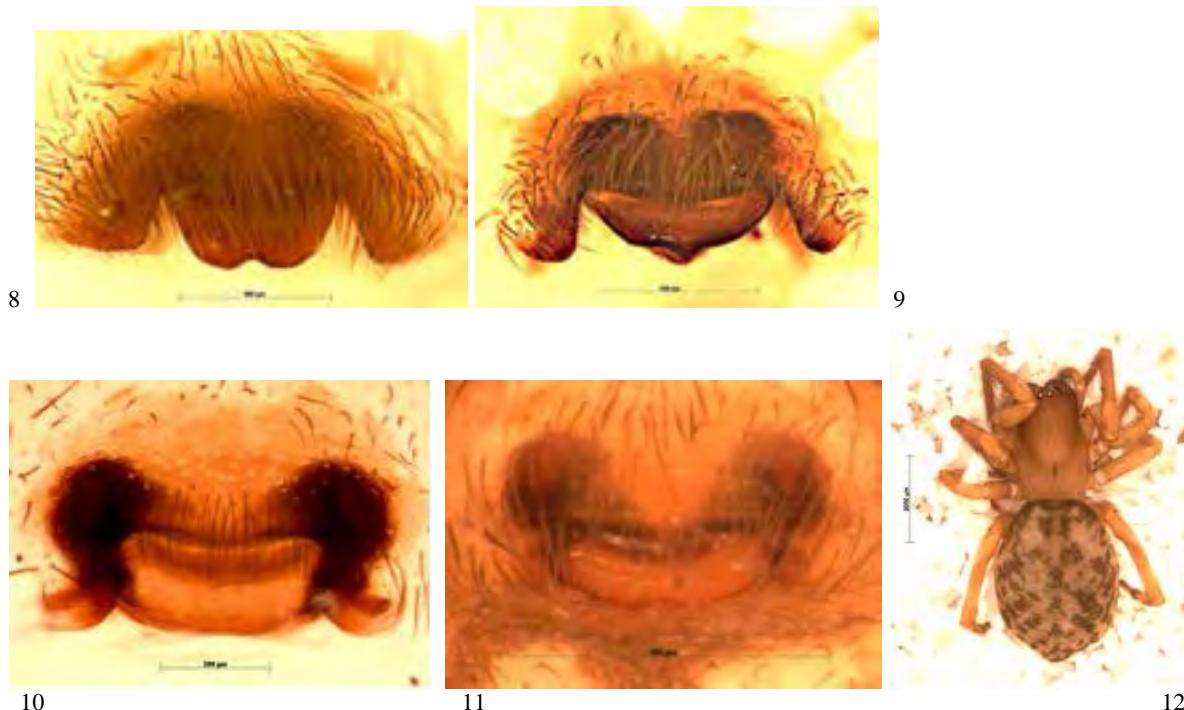
It might be quite complicated with the available literature to easily distinguish between the epigynes of
Maimuna vestita and other *Maimuna* species. To facilitate determination, a photograph of the epigyne of
Maimuna vestita is shown in figure 7.



Figure 7. Epigyne of *Maimuna vestita*.

Amaurobius

In our opinion a complex genus with at least two different types of epigynes. During our Albanian fieldwork we collected only females. Males have more diagnostic characters on their palpal organs. In most *Amaurobius* species the females can be separated on size, abdominal pattern, and the external genital morphology and internal vulval structures. Roughly there are two types of epigynes; one with a distinctly protruding ventral median plate which can have different shapes and be broader than long or longer than broad, more evenly



Figures 8-11. *Amaurobius* species, epigynes of (8) *A. cf kratochvili*, (9) *A. phaeacus*, (10) *A. cf erberi* or *cf pallidus*, and (11-12) *Amaurobius* spec.

rounded or tapering posteriorly; the second type shows a more elongate transverse median plate, much broader than long (ratio about 2:1 or more). These two types do not have a principally different structure but show a different external appearance.

Further study in the future may reveal the identity of the specimens or convince us of the necessity to describe new species.

The Balkan area seems to be diverse in *Amaurobius* species if compared to the western Mediterranean and the rest of Europe.

Cheiracanthium cf ienisteai Sterghiu, 1985

New for Albania

As to the taxonomy in the genus *Cheiracanthium* we can circumscribe it as very unripe. This is already quite clear from the identification tool Araneae (Nentwig et al. 2015) where only ten species are dealt with in the identification key while 19 more species are only listed with some illustrations but without any key characters provided. This unbalance shows the lack of specialist's interest in the genus or the degree of complexity.

Females of *Cheiracanthium* can best be distinguished by size, proportional length of leg I, width of the epigynal orifice, and the internal vulval structures. The use of relative leg length to discriminate between two *Cheiracanthium* species (ratio length prosoma/length femur I) appeared to work well (Van Helsdingen 1979). The entrance pit of the epigyne is usually simple and not distinctly species-specific, so one has to rely on differences in the vulval structures. The genital organ is of relatively simple structure with the entrances of the spermducts in the sidewall of the pit with a simple tube leading to the turning point where it almost directly ends in the receptaculum. The number of coils of the spermduct forms a logic character for the distinction between species. No indication was found of the size of the epigynal pit – width or height – in any description. This measurement might prove to be useful when shown in a graph in relation to the size of a body part, such as the length of the prosoma.

We collected a few female specimens and one male at different localities. Three females were found along the side river of the Vjosa leading to Benjë: one near the point where it branches off the Vjosa and two in the vegetation on the limestone pavement past the spa near Benjë. A single male specimen was collected near Strëmbec, which also lies in the Vjosa river system. All female specimens are assumed to belong to the same species because of their overall resemblance which can be described as follows.

Specimens light brown with opisthosoma a greyish green with a cardiac mark on the anterior half and a vaguely pigmented band from the cardiac mark to the spinnerets; band as wide as the cardiac mark and still faintly visible in the preserved male and female specimens; laterally of the cardiac mark the surface is strewn



13

14

15

Figures 13-15. *Cheiracanthium cf. ienisteai*, male palp, ventral, lateral, and dorsal views. Scale-lines 0,5 mm.

with small white blotches (chromatophores). Legs light brown, frontal pair long, Fe I and Ti I of about equal length, slender, especially the tibia (l/d ratio about 13 in the female, 16 in the male). Width of epigynal opening 0.15-0.17 mm. Male chelicerae simple, parallel-sided and without any conical humps on frontal side (as in *C. elegans*) or on posterior side (as indicated for *C. seidlitzii* by Borges & Wunderlich, 2008: 264, fig. 27a).

The vulva of our female specimens shows a simple coil of about 3/4 length from entrance to turning point. There are two species which seem to share this character, viz. *C. seidlitzii* L. Koch, 1864 and *C. ienisteai* Sterghiu 1985. Both species are large, 9.5 mm (*C. seidlitzii*, L. Koch 1864, 1866) and 9.1 mm (*C. ienisteai* Sterghiu, 1985), respectively, much larger than our specimens, which measure 6.9 and 7.4 mm. The descriptions presented by the two authors are detailed as to body colours and chaetotaxy, but neither the length of leg segments nor the dimensions of the epigyne are given. *C. seidlitzii* is a Mediterranean and Central-Asian species, *C. ienisteai* so far seems restricted to Romania and Macedonia. No records of either species are available for Albania. The vulva of *C. seidlitzii* was depicted only once (Borges & Wunderlich 2008), that of *C. ienisteai* with the original description (Sterghiu 1985).

The male specimen we obtained at Strëmbec is distinctly different from *C. seidlitzii* because it lacks the hump on the posterior side of the chelicerae as shown by Borges & Wunderlich (2008, fig. 27a). If all specimens collected in the Vjosa river system belong to the same species – an assumption – they should belong to *C. ienisteai*, being the only remaining species with comparable vulval structure. The male palp is depicted here (fig. 13-15). Characteristic is the widely looped embolus.

Despite the difference in size between our specimens and the two species discussed here we prefer to provisionally identify the Albanian specimens with *C. ienisteai*, mainly because our male distinctly differs from the male of *C. seidlitzii*, as indicated above.

It might also be a new species, of slightly smaller size. It is equally possible that *C. ienisteai* is synonymous with *C. seidlitzii*. The male of *C. ienisteai* has not been mentioned in the literature. A revision of the genus is clearly overdue.

Asthenargus bracianus Miller, 1938

New for Albania

A single female specimen was collected at the Forest Reserve Bredhi i Hotovës, N of Përmet, in the detritus layer in mixed broadleaf and coniferous forest (locality 2). The specimen is very small and of light coloration. The epigyne is quite striking as it sticks out at a right angle from the ventral surface of the opisthosoma. The specimen is assigned to *A. bracianus* although we have to admit that it is no more than the best choice.



Figures 16-18. *Asthenargus bracianus*, epigyne, ventral, caudal and lateral views.

Measurements (in mm). Total length 2.0; prosoma, length 0.82, width 0.62; opisthosoma, length 1.11, width 0.75, height 0.80. Femur I 0.70, tibia I 0.63. Tm I 0.32, Tm IV absent. Tibia I, diameter 0.087, length of basal d-spine 0.137. Dorsal spines on tibiae, 2-2-1-1.

Astenargus bracianus is a rare species of which few records exist. It was described (Miller 1938) after a single female from a cave on the Island Brac south of Split in the Adriatic Sea, Croatia. In 1969, Wunderlich described *Gongylidiellum malickyi* from a single female collected with a pitfall trap near Dürnstein in the region Wachau, Niederösterreich, Austria. In both cases the epigyne is described and depicted. Thaler (Thaler 1976) presented two more localities in northern Italy (Trentino, Monte Brione above Riva) and Greece (Makedonia, Kerkine Mountains) and depicts epigyne and vulva from different angles. In 1991 (Thaler 1991) the male is finally described after material from Austria (Burgenland, Pardorfer Platte), while more material is recorded from Italy (Liguria, Grotta dei Branzi near Lerici). More recent records were provided for Macedonia (Komnenov 2010, 2013), Slovenia (Kostanjšek & Gorjan 2013, Kostanjšek & Kuntner 2014) and Romania (Weiss & Urák 2009).

The available descriptions, measurements, and illustrations show a lot of variation, probably due to the different angles under which the epigyne was looked at. It is, for instance, difficult to match Wunderlich's figure of the epigyne with that of the vulva (Wunderlich 1969, sub *Gongylidiellum malickyi*, figs. 35 and 36) on first sight, but it is now clear that the vulva (fig. 36) is shown from the anterior side, while the epigyne is depicted as seen more from the ventral side (fig. 35). Strange enough none of the authors have depicted the epigyne from the backside which shows a median septum, though that part is visible in the lateral view of the organ as published by Thaler (Thaler 1976, figs. 2 and 6). Our specimen deviates from the descriptions of *A. bracianus* and *G. malickyi* in the colour of the opisthosoma which is grey in our specimen, but indicated as blackish ("schwarzlich", Thaler 1976) or dark-grey ("dunkelgrau", Wunderlich 1969).

Heterotrichoncus pusillus (Miller, 1958)

New for Albania

A single female specimen was collected on April 23, 2014 in the Forest Reserve Bredhi i Hotovës, Province Gjrokastër, Albania on the border of an open grassland and forest.

Because the specimen is very small we decided to keep it intact and study and describe its external morphology and try to get an impression of the vulval structure by soaking the complete specimen in lactic acid instead of dissecting the specimen and destroying the abdomen. The disadvantage of this procedure is that it impedes an inspection from the dorsal side of the vulva and consequently does not allow to obtain an understanding of its spatial, three-dimensional structure. It only provides a fingerprint impression of the organ.

The identification proved to be difficult despite the use of available tools such as that of Araneae (Nentwig et al., version 4.2015) and other relevant literature. The Albanian specimen in our opinion most closely resembles *Heterotrichoncus pusillus* (Miller, 1958). A description of the specimen is given below.

Trichoncus pusillus was described by Miller after material from (then) Czechoslovakia, now the Czech Republic. Denis still included it in *Trichoncus* in his treatise of this genus (Denis 1965) but Wunderlich based a new genus *Heterotrichoncus* on this single species (Wunderlich 1970). Millidge (Millidge 1977) suggests that *Heterotrichoncus* could be a junior synonym of *Trichoncoides* Denis 1950. It cannot be denied that there is a fair amount of general resemblance between the species of *Trichoncoides* and *Heterotrichoncus pusillus* but this is not the moment to reflect any further on the real taxonomic relationship between these two genera.

According to Wunderlich (1970) *Trichoncus pusillus* did not fit in *Trichoncus* because specimens he obtained from Austria had striking stridulating ridges on the branchial opercula (lacking in *Trichoncus*) and structural differences in the genitalia. He also states that specimens of *Heterotrichoncus* are of light coloration (dark with blackish abdomen in *Trichoncus*). We did not find any male specimen in Albania so male palpal characters could not be checked. The color of the Albanian female is light indeed. We assume that the

stridulating files on the opercula are a male character and its absence in the Albanian specimen therefore is of no importance.

Description.

Small specimen of light brown color. A striking character are the light yellow knees consisting of the patellae and the basal one-sixth of the tibia.

Measurements (in mm). Total L 1.4. Prosoma L 0.52, W 0.40. Opisthosoma L 0.90, W 0.62, H 0.60. Clypeus H 0.062. Chelicerae L 0.19, W 0.10.

Legs:

	I	II	III	IV
Fe	0.39	0.36	0.31	0.42
Pa	0.15	0.14	0.12	0.13
Ti	0.32	0.29	0.24	0.39
Mt	0.25.	0.23	0.21	0.25
Ta	0.24	0.24	0.22	0.22

Tm I 0.30, Tm IV absent. Tibiae: dorsal spines formula 1-1-1-1. Length of d-spines 1.5 Ø.

Epigyne. Because of the minute size of the specimen we did not dissect the genital organ and studied the epigyne and the internal vulval structures only from the ventral side in the cleared specimen (fig. 19). External view before clearing: a median ventral plate can be distinguished between two more chitinized lateral plates, their margins converging anteriorly and disappearing below a median transverse structure which covers with a bow-like widening the entrances of the spermducts at either side. Internal structure: at either side one can distinguish a thick-walled duct of about one single loop towards the receptacula seminis.



Figure 19. *Heterotrichoncus pusillus*, vulva, ventral view.

Distribution.

Apparently Miller waited with describing *Trichoncus pusillus* until he had obtained both sexes (Miller 1958). He first collected two females from the surroundings of Brno (2♀, Hadecka Planinka NNR, 15.vi.1951, altitude 350 m). Much later he obtained both sexes (2♂ 1♀, Pavlov, Pavlovske Vrchy hills, v-vi.1954) in Southern Moravia, both in (then) Czechoslovakia, now in the Czech Republic. Subsequently the species was included in its treatise on the spiders of the Czechoslovakian fauna (Miller 1977). Distribution data were extracted from the Catalogue of spiders of the Czech Republic (Buchar & Ruzicka 2002). Denis still included it in *Trichoncus* in his article on this genus (Denis 1965) but already expressed his doubts about the correct placement in that genus. He based his comments on a female specimen from Czechoslovakia he had received as a gift from Miller and we assume the specimen now is in the Muséum National d'Histoire Naturelle in Paris. Wunderlich (1970) based his decision to place this species in a separate genus *Heterotrichoncus* on a male and female specimen he had collected in Austria (Pfaffenbergen in Kärnten, no more details).

More recent records are from European Russia; Tanasevitch et al. (Tanasevitch et al. 2012) report a single male specimen from limestone steppes in the Russian plain (Ulyanovsk Region, Starokulatsky District, env. of Ust'-Kulatka, Mt. Zolotaya, 52.61075N 47.69865E, altitude 200 m, steppe zone, steppe with limestone outcrops, dry sandy-stony steep slope with sparse meadow-steppe vegetation, under stones). From Spain the species is recorded by Perez & Mendez (Perez & Mendez 2013) from Asturia, where two males were found in a beech forest at Joyosa de Redimuna in the National Parc Montana de Covadonga at an altitude of 1,280 m.

In the World Spider Catalog as well as in Fauna Europaea the species is also mentioned for Slovakia, which is based on an older, not updated checklist of the spiders of Slovakia composed by Stanislav Korenko (year unknown). Peter Gajdos informed me (pers. com.) that the inclusion of *Heterotrichoncus pusillus* in the Catalog of the Slovakian spiders (Gajdos et al. 1999) was a mistake since it concerned *Trichoncus kulczynskii* Miller, 1935. The mistake was copied in the checklist of Korenko on the internet. Therefore Slovakia has to be removed from the distribution pattern of *H. pusillus*.

We may conclude that *Heterotrichoncus pusillus* is a very small and very rarely collected thermophilous spider occurring in Spain, Austria, European Russia, and now also Albania. A wide distribution of a relatively rare species.

***Tapinocyba cf. mitis* (O. P.-Cambridge, 1882)**

New for Albania

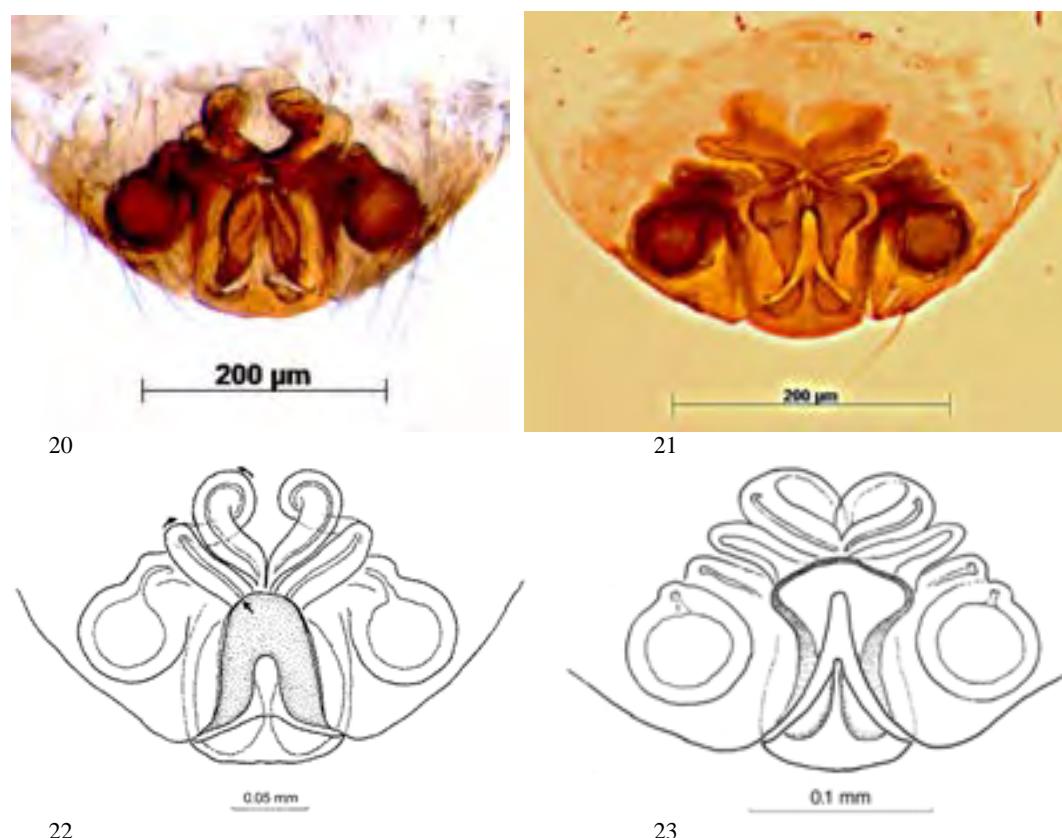
A single female was collected at the Forest Reserve Bredhi i Hotovës by sifting litter in mixed forest. It clearly belongs to *Tapinocyba*. The key in Araneae Spiders of Europe (Nentwig et al. 2015) does not lead to any of the eight species included in the key, nor can any resembling species be found in the nine species not included in the key, among which four species are only known from the male sex.

The only species so far recorded from Albania, *T. pallens*, differs from our specimen in the absence of a “continuous anterior margin” as mentioned in the key and shown in the illustrations. In our specimen the posterior portion of the median plate (behind the constriction) is approximately as long as wide, which agrees more or less with *T. mitis* as illustrated by Roberts (Roberts 1987) but deviates from that species by the more narrow anterior loops of the spermducts. *T. mitis* has a illogic disjunct distribution with records from Great Britain, France, Spain, Latvia, and Bulgaria.

The specimen probably represents a new species but this needs further study.

***Trichoncus cf. sordidus* Simon, 1884**

Two female specimens were found at Strëmbec (locality 6). They have the typical appearance of a *Trichoncus*, such as the relatively coarse setae on the opisthosoma. The specimens differ from the single specimen mentioned by us (IJland et al. 2014) from Italy (surroundings of Castellabate) in that the shape of the entrance of the epigyne as seen in the ventral aspect has a different outline. In the Italian specimen (fig. 20, 22) there is a bell-shaped outline of the cavity where the entrances of the spermducts are situated. In the Albanian specimens (fig. 21, 23) this cavity is widened anteriorly. This might represent a different species, but a decision on the taxonomic status of the Albanian specimens has to be postponed until the type-material of *T. sordidus* in Paris is examined. In fact we have no idea about the meaning of this difference in anatomy, nor do we know anything about a possible degree of variation of this character within *T. sordidus* as the species is recognized at present.



Figures 20-23. *Trichoncus sordidus*, vulva. 20, 22, specimen from Castellabate, Salerno, Italy; 21, 23, specimen from Gjirokastër, Strembec, Albania. Note the differences in shape of the median cavity at either side of the median inverted-Y-shaped entrances. Figs. 20 and 22 copied from IJland & Van Helsdingen 2014.

Miller, in his treatise of the Mohelna spiders in the Czech Republic (Miller 1947: 67, pl.8 fig. 3) clearly had a specimen corresponding with our Albanian type. Miller thought that a specimen from France (Alpes-Maritimes) which he received from Simon was misidentified and represented a different species, for which he suggested the name *Trichoncus sordidatus*, but this suggestion so far has been neglected. *T. sordidatus* is simply listed as a synonym of *T. sordidus*. In his later treatise on the spiders of Czecho-Slovakia (Miller 1971) the same illustration of 1947 is used. Wiegle's illustration, after a German specimen from Baden-Württemberg (Wiegle 1967, fig. 17) is unclear, and so is the illustration in Heimer & Nentwig (Heimer & Nentwig 1991, fig 694), which looks as if it is a copy of Wiegle's figure. Wunderlich, again, copies Wiegle's illustration (Wunderlich 2011, fig. 106). Denis clearly illustrates our Italian (Castellabate) type (Denis 1965, fig. 12). After this quick and superficial analysis of the available illustrations in the literature it becomes clear that a re-examination of material in collections is needed to clarify the observed differences.

Walckenaeria abantensis Wunderlich, 1995

New for Albania

Our specimen, a single female from litter in the Forest Reserve Bredhi i Hotovës, deviates slightly from the illustration, not in the general measurements but in the vulva in that the ducts in the dorsal plate run parallel in anterior direction (fig. 24) and do not converge medially as in the figures of Wunderlich (1995a, fig. 88) and Bosmans (Bosmans et al. 2009, fig. 23).

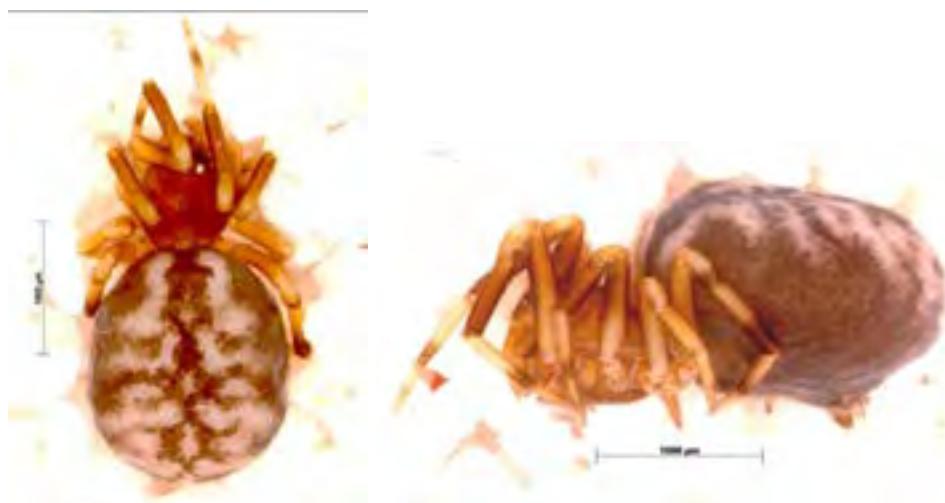


Figure 24. *Walckenaeria* cf *abantensis*, vulva ventral view.

Dipoena nigroreticulata Simon, 1879

New for Albania

A single female was collected on an area of limestone pavement near Benjë, 1.v.2014, altitude 360 m. The species has an abdominal pattern of irregular beige-colored figures on a darker background (figs. 25-26). The spinnerets are invisible from above because the rounded posterior part of the opisthosoma bulges over them.



Figures 25-26. *Dipoena nigroreticulata*, dorsal and lateral views. Scale line 1 mm.

This species shows a rather disjunct distribution pattern, probably because it is not easily collected. Numbers of collected specimens are low in the records. Records are available from Portugal, France, Germany, Austria, Czech Republic, Slovakia, Hungary, Croatia, Greece (Crete), Poland, and Romania, and Bulgaria (Van Helsdingen 2015). The next eastward record comes from Azerbaijan (Mikhailov 2013).

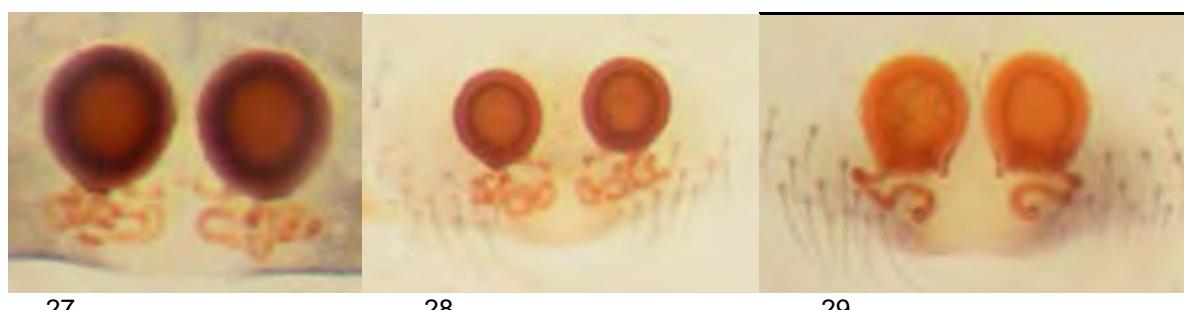
***Robertus mediterraneus* Eskov, 1987**

New for Albania

The species is very similar to *R. lividus*, and especially determination of males might give problems (Knoflach 1992). Eskov described the species, and gave in his diagnosis that it could be distinguished from *L. lividus* by the shape of the bifid apex of the median apophysis' inner branch (Eskov 1987). Knoflach lists some more differences (Knoflach 1992). The tip of the embolus in the non-expanded palp is ventrally visible in *R. lividus*, but not in *R. mediterraneus*. The distal part of the embolus of *R. mediterraneus* tapers gradually to a point, while this part of *R. lividus* remains broad and at the end is cut off rather abruptly. This difference is reflected in the furrow of the conductor, the furrow being shallow and broad in *R. lividus*, and deep and narrow in *R. mediterraneus*. Another subtle difference in the conductor is that the posterior tip in *L. mediterraneus* is truncate in *R. lividus*, and more pointed in *R. mediterraneus*. Last, the posterior part of the tegular apophysis is pointed in *R. mediterraneus* and rounded in *R. lividus*. It is very likely that many older records of *R. lividus* from southern Europe actually concern *R. mediterraneus*, as was already mentioned by Eskov, and confirmed by Knoflach (Eskov 1987, Knoflach 1992).

***Theridion* spec. *melanurum*-group**

Distinction between the species of this species-complex remains too difficult for reliable identification and we therefore prefer to mention the presence of specimens in our collecting samples belonging to this group of species rather than publish a wrong identification for Albania. Females were collected of three different species.



Figures 27-29. Vulvae of females from the *Theridion melanurum* species group. Fig 27 Species A, fig 28 Species B, fig 29 Species C

***Xysticus thessalicus* Simon, 1916**

New for Albania

We note some differences between our specimens - one male and two female specimens from three different localities - and the available descriptions and figures of *Xysticus thessalicus*. For that reason we supply some photographs of the genitalia of our specimens. We are convinced that our specimens do not belong to *X. thessalicoides* because in the male palp the tegular apophysis is not as much developed as shown by Wunderlich (Wunderlich 1995b, figs. 8-15), while in the epigyne the distance between the posterior margins of the two



Figures 30-32. *Xysticus thessalicus*, male palp, lateral and ventral views; vulva, ventral view.

grooves and the epigastric furrow is much larger (about three times the length of a groove). In our male the shape of the tibial apophysis looks different while the tegular apophysis is extremely weakly developed (figs. 30, 31), even weaker than in *X. thessalicus*. The ducts in the vulva (fig. 32) seem to run a slightly different course as compared to those depicted by Azarkina and Logunov (Azarkina et al. 2001: figs. 18-19). We get the impression that there are more species in the *thessalicus*-species-group than described so far and that our specimens do not fit seamlessly in *X. thessalicus*.

REFERENCES

Azarkina, G. N. & D.V. Logunov 2001. Separation and distribution of *Xysticus cristatus* (Clerck, 1758) and *X. audax* (Schrank, 1803) in eastern Eurasia, with description of a new species from the mountains of central Asia (Aranei: Thomisidae). – Arthropoda Selecta 9: 133-150.

Bolzern, A., D. Burckhardt & A. Hänggi, 2013. Phylogeny and taxonomy of European funnel-web spiders of the *Tegenaria-Maltonica* complex (Araneae: Agelenidae) based upon morphological and molecular data. – Zoological Journal of the Linnean Society 168: 723-848.

Bolzern, A. & A. Hänggi 2006. *Drassodes lapidosus* und *Drassodes cupreus* (Araneae: Gnaphosidae) – eine unendliche Geschichte. – Arachnologische Mitteilungen 31: 16-22.

Bosmans R., L. Baert, J. Bosselaers, H. De Koninck, J.-P. Maelfait & J. Van Keer 2009. Spiders of Lesbos (Greece). – Nieuwsbrief Belgische Arachnologische Vereniging 24 (suppl.): 1-70.

Borges, P. A. V. & J. Wunderlich 2008. Spider biodiversity patterns and their conservation in the Azorean archipelago, with descriptions of new species. – Systematics and Biodiversity 6: 249-282.

Buchar, J. & V. Ruzicka 2002. Catalogue of the spiders of the Czech Republic. – Peres Publishers, Praha, Czech Republic.

Denis, J. 1965. Notes sur les érigonides. XXVIII Le genre *Trichoncus* (Araneae). – Annales de la Société Entomologique de France (N.S.) 1: 425-477.

Eskov, K. Y. 1987. The spider genus *Robertus* O. Pickard-Cambridge in the USSR, with an analysis of its distribution (Arachnida: Araneae: Theridiidae). – Senckenbergiana Biologica 67: 279-296.

Gajdos, P., J. Svaton & K. Sloboda 1999. Katalóg pavúkov Slovenska - Catalogue of Slovakian Spiders. – Ustav krajinnej ekologie SAV, Bratislava.

Helsdingen, P.J. van 1979. Remarks concerning Clubionidae. – Bulletin of the British Arachnological Society 4: 298-302.

Helsdingen, P.J. van 2015. Araneae. In: Fauna Europaea Database (Version 2015.2). – <http://www.european-arachnology.org>

IJland, S. & P.J. van Helsdingen 2014. On some spiders (Arachnida, Araneae) from the surroundings of Castellabate, Italy. – Nieuwsbrief SPINED 34: 16-33.

Knoflach, B. 1992. Neue *Robertus*-Funde in den Alpen: *R. mediterraneus* Eskov und *Robertus* sp. (Arachnida, Aranei: Theridiidae). – Berichte des Naturwissenschaftlich-Medizinischen Vereins in Innsbruck 79: 161-171.

Komnenov, M. 2010. Preliminary report on the results of investigation on the cave spider fauna in the frame of international speleological expedition to Mountain Hekurave, south slope of Prokletije, Albania. – Progressione 57(1-2): 144-146.

Komnenov, M. 2013. Spider fauna of the Osogovo Mt. Range, Northeastern Macedonia. – Fauna Balkana 2: 1- 267.

Kostanjšek, R. & A. Gorjan A. 2013. A contribution to the Slovenian spider fauna – II. – Natura Sloveniae 15: 5-12.

Kostanjšek, R. & M. Kuntner 2014. Araneae Sloveniae: A national spider species checklist. – Internet: <http://www.bioportal.si/katalog/araneae.php>

Korenko, S. [year?] Checklist of Slovakia Spiders. - <http://www.pavuky.sk/en/checklist.htm>

Mikhailov, K.G. 2013. The spiders (Arachnida: Aranei) of Russia and adjacent countries: a non-annotated checklist. – Arthropoda Selecta, Suppl. 3: 1-262.

Miller, F. 1938. Zwei neue Höhlenspinnen aus den Grotten Jugoslaviens. – Festschrift Embrik Strand 4: 629-633.

Miller, F. 1958. Drei neue Spinnenarten aus den mährischen Steppengebieten. – Věstník Československé Zoologické Společnosti v Praze 22: 148-155.

Miller, F. 1971. Pavouci-Araneida. – Klíč zvřený ČSSR 4: 51-306.

Millidge, A. F. 1977. The conformation of the male palpal organs of linyphiid spiders, and its application to the taxonomic and phylogenetic analysis of the family (Araneae: Linyphiidae). – Bulletin of the British Arachnological Society 4: 1-60.

Nentwig W., T. Blick, D. Gloor, A. Hänggi & C. Kropf 2015. Araneae Spiders of Europe, Version 04.2015. – www.araneae.unibe.ch.

Pérez Sánchez, D. & M. Méndez Iglesias 2013. Aranas epigeas (Araneae) de los hayedos del Parque Natural de la Montaña de Covadonga (Norte de España). – Revista Iberica de Aracnología 23: 83 89

Roberts, M.J. 1987. The spiders of Great Britain and Ireland 2: Linyphiidae. – Harley Books Colchester.

Sterghiu, C. 1985. Fam. Clubionidae. In: Fauna Republicii Socialiste România: Arachnida, Volumul V(4). Academia Republicii Socialiste România, – Bucharest.

Tanasevitch, A.V. & Y.G. Alekseenko 2012. To the knowledge of the linyphiid spider fauna (Aranei: Linyphiidae) of limestone steppes in the Russian plain. – Caucasian Entomological Bulletin 8: 193-198.

Thaler, K. 1976. Über wenig bekannte Zwermspinnen aus den Alpen, IV (Arachnida, Aranei, Erigonidae). – Archives des Sciences, Genève 29: 227-246.

Thaler, K. 1991. Über wenig bekannte Zwermspinnen aus den Alpen-VIII (Arachnida: Aranei, Linyphiidae: Erigoninae). – Revue Suisse de Zoologie 98: 165-184.

Weiss I. & I. Urák 2009. Faunenliste der Spinnen Rumäniens (Checklist of the Romanian spiders) (Arachnida: Araneae). – <http://www.arachnologie.info/fauna.htm> (last update 7.01.2009)

Wiehle, H. 1967. Beiträge zur Kenntnis der deutschen Spinnenfauna, V. (Arach., Araneae). – Senckenbergiana Biologica 48: 1-36.

Wunderlich, J. 1969. Zur Spinnenfauna Deutschlands, IX. Beschreibung seltener oder bisher unbekannter Arten (Arachnida: Araneae). – Senckenbergiana Biologica 50: 381-393.

Wunderlich, J. 1970. Zur Synonymie einiger Spinnen-Gattungen und -Arten aus Europa und Nordamerika (Arachnida: Araneae). – Senckenbergiana Biologica 51: 403-408.

Wunderlich, J. 1995a. Beschreibung bisher unbekannter Arten der Baldachinspinnen aus der Östlichen Mediterraneis (Arachnida: Araneae: Linyphiidae). – Beiträge zur Araneologie 4: 655-686.

Wunderlich, J. 1995b. Zur Kenntnis west-paläarktischer Arten der Gattungen *Psammitis* Menge 1875, *Xysticus* C.L. Koch 1835 und *Ozyptila* Simon 1864 (Arachnida: Araneae: Thomisidae). – Beiträge zur Araneologie 4: 749-774.

Wunderlich, J. 2011. Extant and fossil spiders (Araneae). – Beiträge zur Araneologie 6: 1-640.



BINNENWANDELENDE EXOTEN

Peter J. van Helsdingen

European Invertebrate Survey – Nederland, P.O. Box 9517, 2300 RA Leiden, Netherlands (helsdingen@naturalis.nl)

ABSTRACT

Recent records of introduced species (*Phoneutria* spec., *Heteropoda venatoria* (female with egg-cocoon), *Eusparassus walckenaeri*, *Steatoda nobilis*, *Macrothele calpeiana*, and *Zoropsis spinimana*) in the Netherlands are briefly discussed. The formerly rare *Steatoda grossa* has become a well-established common dweller in houses and sheds.

Key words: introduced species, Netherlands

INLEIDING

Naast de menselijke immigratiegolf, waarover we dagelijks worden geïnformeerd via de media, is er natuurlijk ook een minder opvallende stroom van planten en dieren die ons land binnenkomen. Zeker bij de kleinere dieren baren ze minder opzien en de pers besteedt er nauwelijks aandacht aan. Tenzij er iets mis gaat en dan nog in de komkommertijd. Dan komt het mooi uit als opvulling.

MELDINGEN VAN SOORTEN

Phoneutria

Enige opwinding was er begin juli van dit jaar. Bij de bloemenveiling in Rijnsburg werd een vreemde spin gesigneerd. Via sms en email werd Naturalis gewaarschuwd, geheel volgens het daar geldende protocol. De bijgevoegde foto maakte duidelijk dat het om een *Phoneutria*-soort ging. Ik verzocht onmiddellijk om het dier te vangen en ontsnappen te voorkomen. De beet van een *Phoneutria* is op zijn minst onplezierig. De schrijver van het bericht meldde dat hij al gevangen was, maar een minuut later kwam er een nieuw bericht: de chauffeur van de vrachtauto had hem losgelaten, want volgens hem was het een gewone Nederlandse soort. Volgens de foto beslist niet! In een bosje gegooid! Dat was dus niet volgens het protocol. Een *Phoneutria*! Het werden drukke dagen, alle media wilden alles weten over de mogelijkheid dat hij ergens in huizen in de buurt zou opduiken, hoe snel hij kon lopen, hoe lang hij zou leven. En natuurlijk of hij giftig was, waarmee dan altijd wordt bedoeld of hij ons kan bijten en wat de gevolgen voor het slachtoffer zijn. Ctenidae, waartoe *Phoneutria* behoort, hebben sterk gif en de beet zal behoorlijk vervelend zijn. De kunst is dan om bij het beantwoorden van zulke vragen geen paniek te zaaien maar wel te waarschuwen. Het mooiste was het rood-witte lint dat de beveiliging had opgehangen alsof de spin niet uit het bosje mocht. De spin is nooit meer teruggezien. Sommigen vrezen nog steeds dat er zich nu een hele populatie zal ontwikkelen. Dat het geval zo veel aandacht kreeg was natuurlijk het gevolg van weinig ander nieuws in de komkommertijd.

Eerder dit jaar was er al een *Phoneutria* gezien in een winkel in Amsterdam in een kist tomaten. Er zijn ook waarnemingen gedaan in België (*P. nigriventer*) en in Duitsland (*P. boliviensis*) (Van Helsdingen 2015, Fauna Europaea).

Heteropoda venatoria (Linnaeus, 1767)

Regelmatig komen er meldingen van wat in ons land meestal de bananenspin wordt genoemd. Ze komen vooral binnen bij importeurs van tropisch fruit. We hebben vaste leveranciers onder die bedrijven. Meestal zijn het vrouwtjesspinnen, soms mannetjes, maar onlangs kregen we een vrouwtje van *Heteropoda venatoria* met een eicocon. Meteen na binnenkomst in Naturalis kwamen de jongen al uit de eicocon. Een ronde, afgeplatte, dus schijfsvormige cocon die onder het lichaam werd meegedragen. Er kwamen 18 jongen uit de cocon. In principe zou zo iets een tijdelijke populatie kunnen opleveren. Tot nu toe is dat nog niet voorgekomen. De jonge dieren worden uitgekweekt om ervaring met kweken op te doen, maar ze zullen natuurlijk niet worden losgelaten.