

Spiders of some forests in the Famenne (Walloon region, Belgium) sampled with pitfall trapping

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Summary

In this paper, spiders from three different forest types in the Famenne (Walloon region, Belgium) caught by pitfall trapping were analysed. A total of 769 adult individuals belonging to 79 species were caught. Despite a short sampling period (March 2002-September 2002) and the disappearance of a lot of traps due to wild boar activity, we still found a lot of faunistical interesting species (i.e. *Formiphantes lepthyphantiformis*, *Pirata uliginosus*, *Asthenargus paganus*, *Centromerus leruthi*). The linyphiid spider *Formiphantes lepthyphantiformis* (STRAND, 1907) is discussed in detail.

Résumé

Dans cet article, nous analysons les araignées provenant d'un échantillonnage de trois types de forêts de la Famenne (Région Wallonne, Belgique) et capturées avec des pièges d'activité placés dans le sol. Un total de 769 individus adultes appartenant à 79 espèces ont été capturés. Malgré une courte période d'échantillonnage (mars 2002-septembre 2002) et une importante destruction des pièges due à l'activité des sangliers, nous avons trouvé des espèces intéressantes (i.e. *Formiphantes lepthyphantiformis*, *Pirata uliginosus*, *Asthenargus paganus*, *Centromerus leruthi*). Le linyphiid *Formiphantes lepthyphantiformis* (STRAND, 1907) est discuté en détail.

Samenvatting

In dit artikel worden de spinnen, gevangen door middel van bodemvallen, in drie verschillende bostypes in de Famenne (waalse regio, België) geanalyseerd. In totaal werden 769 adulte spinnen gevangen behorende tot 79 soorten. Ondanks de korte bemonsteringsperiode (Maart 2002-September 2002) en het afwezig zijn van een aantal stalen door een hoge activiteit van everzwijnen, vonden we toch een aantal faunistisch interessante soorten (i.e. *Formiphantes lepthyphantiformis*, *Pirata uliginosus*, *Asthenargus paganus*, *Centromerus leruthi*). De hangmatspin *Formiphantes lepthyphantiformis* (STRAND, 1907) wordt in detail besproken.

Introduction

Spiders of forests in the Southern part of Belgium (Walloon region) are rarely investigated. The literature of spiders in Walloon forests are scarce and are, with some exceptions, mostly all situated in the 'Hautes Fagnes' region (CASEMIR 1976, KEKENBOSCH & BAERT 1981, BAERT & KEKENBOSCH 1982, PONGE *et al.* 1997,

SOUFFREAU 2003). From other regions in the Walloon Region, data on spider distribution and appearance is scarce. We had the opportunity to investigate spiders from three different forest types in the Famenne that were sampled within a larger research on xylobiont beetles (WARZEE & DRUMONT 2004, WARZEE *et al.* 2004, THIENEN & WARZEE 2005).

Table 1. Characteristics of the sampled forests in the Famenne region.

Stand	Stand location	Latitude (N)	Longitude (E)	Altitude (m)	Slope exposure	Exposition	Area (ha)	Composition	Plantation date
Pine	Chanly	50° 04' 02''	05° 09' 41''	325	5-15%	West	31.6	<i>Pinus sylvestris</i> L. (97%) open space (2%) <i>Pinus nigra</i> subsp. <i>laricio</i> Maire (1%) sub-level : <i>Quercus</i> spp.	1924
Spruce	Wellin	50° 03' 33''	05° 07' 29''	340	5-15%	South	16.8	<i>Picea abies</i> (L.) Karst. (95%) open space (5%)	1946
Broad-leaved	Neupont	50° 02' 34''	05° 07' 55''	290	25-45%	South-East	57.9	<i>Quercus</i> spp. (79%) <i>Fagus sylvatica</i> L. (20%) <i>Carpinus betulus</i> L. (1%)	?

Study area

The three forests are situated near Chanly ('Les Cougis au Hambeau'), Wellin ('Fontaine Pierre Rongeau') and Neupont ('Chaumont'). Details of the forest types are given in Table 1. The forests differ mainly in the principal tree species: from pine forests (Chanly) or spruce forest (Wellin) to mixed deciduous forest (Neupont).

Material and Methods

The forests were sampled by means of pitfall traps filled with a saturated saline solution. The traps were emptied every week. In each forest, three pitfall traps were installed in the center of the forest where also a study of xylobiont beetles was conducted. Traps were about 7 to 8m away from each other ordered in a triangle. Samples were not available of Neupont and Wellin from 26/06/2002 till 27/09/2002 due to intense digging activities of wild boars. Spiders from the three pitfall traps were put together in one vial per date.

Results

In total, 769 adult individuals were caught during the sampling period. These belong to 79 species. A list of all the catches of spiders in the three forest types is presented in Table 2.

We see that most individuals and species were caught in Chanly (Table 2), but this is mainly due to the biased character of the sampling campaign in the other sites (see above). Still, with almost no data in a large period in Wellin and Neupont, a lot of species could be found, but the bias makes it difficult to compare diversity in these sites.

Some interesting species could be found during the sampling campaign and one of them

in particular (*Formiphantes leptyphantiformis*) will be discussed below in more detail.

Formiphantes leptyphantiformis (STRAND, 1907)

Formiphantes leptyphantiformis was formerly named *Lepthyphantes leptyphantiformis*, but was assigned to the newly erected genus *Formiphantes* by Saaristo & Tanasevitch (cited in Bosmans & Vanuytven, 2001). This species was found for the first time in our country in Ethe-Buzenol (Baert & Vanhercke, 1982). Later on, the species was also found in Flanders (Northern part of Belgium) in the large Soniën forest (Segers, 1988). This is the third finding place of this species in Belgium. The species is listed on the Red list of spiders in Flanders in the category 'Geographically Restricted (RG)' and reaches its western limit of distribution in our country (Maelfait *et al.*, 1998). Other habitats in where the species was found are the litter layer of forests and subalpine dwarf shrubs (Maurer & Hänggi, 1990; Heimer & Nentwig, 1991) and in crevices of small mammals (Heimer & Nentwig, 1991). It seems to be a typical Central European species with preference for higher altitudes (Maurer & Hänggi, 1990).

In this study, we found an adult female in Neupont on 7 April 2002. Segers (1988) found a male in the period 27/01/1988 – 14/02/1998. It seems that the species is mainly active in the winter and early spring, while others say that the species can be found from September on till June (Heimer & Nentwig, 1991). More findings of this species should give a clearer picture about phenology patterns.

The species is very rare in Europe and displays indeed a typical Central European distribution: absent in the Netherlands (Van Helsdingen, 1999), United Kingdom (Merrett & Murphy,

Table 2. List of species and number of caught individuals per forest site. Nomenclature follows BOSMANS & VANUYTVEN (2001).

Species	Chanly	Neupont	Wellin	Total
Family Amaurobiidae				
<i>Coelotes terrestris</i> (WIDER, 1834)	60	42	42	144
<i>Eurocoelotes inermis</i> (L. KOCH, 1855)			4	4
Family Dictynidae				
<i>Cicurina cicur</i> (FABRICIUS, 1793)	1	3		4
Family Gnaphosidae				
<i>Haplodrassus silvestris</i> (BLACKWALL, 1833)	12	2		14
<i>Micaria pulicaria</i> (SUNDEVALL, 1831)	2			2
<i>Zelotes subterraneus</i> (C.L. KOCH, 1833)	3			3
Family Clubionidae				
<i>Clubiona caerulescens</i> L. KOCH, 1867	1	1		2
<i>Clubiona compta</i> C.L. KOCH, 1839		1		1
<i>Clubiona reclusa</i> O.P.-CAMBRIDGE, 1863	1			1
Family Liocranidae				
<i>Agroeca brunnea</i> (BLACKWALL, 1833)	15	3		18
<i>Phrurolithus festivus</i> (C.L. KOCH, 1835)	1			1
Family Zoridae				
<i>Zora spinimana</i> (SUNDEVALL, 1833)	5	2		7
Family Anyphaenidae				
<i>Anyphaena accentuata</i> (WALCKENAER, 1802)		1		1
Family Thomsidae				
<i>Coriarachne depressa</i> (C.L. KOCH, 1837)	1			1
<i>Ozyptila trux</i> (BLACKWALL, 1846)	18	14	1	33
Family Philodromidae				
<i>Philodromus dispar</i> WALCKENAER, 1825		1		1
Family Salticidae				
<i>Euophrys frontalis</i> (WALCKENAER, 1802)		1	1	2
Family Lycosidae				
<i>Alopecosa pulverulenta</i> (CLERCK, 1757)	2		1	3
<i>Pardosa amentata</i> (CLERCK, 1757)	3		4	7
<i>Pardosa pullata</i> (CLERCK, 1757)	1			1
<i>Pardosa saltans</i> TÖPFER-HOFMANN, 2000	29	8	4	41
<i>Pirata uliginosus</i> (THORELL, 1872)	34	29	12	75
<i>Trochosa terricola</i> THORELL, 1856	52	1	16	69
Family Pisauridae				
<i>Pisaura mirabilis</i> (CLERCK, 1757)	1			1
Family Agelenidae				
<i>Histoipona torpida</i> (C.L. KOCH, 1834)	5	9	3	17
<i>Tegenaria picta</i> SIMON, 1870	1	2		3
Family Hahnidae				
<i>Hahnia helveola</i> SIMON, 1875	3		1	4
<i>Hahnia montana</i> (BLACKWALL, 1841)			2	2
Family Theridiidae				
<i>Enoplognatha ovata</i> (CLERCK, 1757)		1		1
<i>Episinus angulatus</i> (BLACKWALL, 1836)		1		1
<i>Robertus lividus</i> (BLACKWALL, 1836)		1	1	2
Family Tetragnathidae				
<i>Pachygnatha listeri</i> SUNDEVALL, 1830	56	20	13	89
Family Metidae				
<i>Metellina mengei</i> (BLACKWALL, 1869)	1			1
<i>Metellina merianae</i> (SCOPOLI, 1773)			1	1

Family Araneidae				
<i>Cercidia prominens</i> (WESTRING, 1851)		1		1
<i>Gibbaranea gibbosa</i> (WALCKENAER, 1802)		1		1
Family Linyphiidae				
Subfamily Erigoninae				
<i>Ceratinella scabrosa</i> (O.P.-CAMBRIDGE, 1871)	4			4
<i>Dicymbium nigrum</i> (BLACKWALL, 1834)			3	3
<i>Dicymbium tibiale</i> (BLACKWALL, 1836)	4		8	12
<i>Diplocephalus latifrons</i> (O.P.-CAMBRIDGE, 1863)			1	1
<i>Dismodicus bifrons</i> (BLACKWALL, 1841)			1	1
<i>Gonatum rubellum</i> (BLACKWALL, 1841)	4			4
<i>Gongylidiellum vivum</i> (O.P.-CAMBRIDGE, 1875)			2	2
<i>Micrargus herbigradus</i> (BLACKWALL, 1854)	1			1
<i>Minyriolus pusillus</i> (WIDER, 1834)	2			2
<i>Monocephalus fuscipes</i> (BLACKWALL, 1836)	1	1	1	3
<i>Pocadicnemis pumila</i> (BLACKWALL, 1841)	3	1	1	5
<i>Walckenaeria acuminata</i> BLACKWALL, 1833			2	2
<i>Walckenaeria atrotibialis</i> (O.P.-CAMBRIDGE, 1878)	8	3	3	14
<i>Walckenaeria cucullata</i> (C.L. KOCH, 1836)	13			13
<i>Walckenaeria cuspidata</i> (BLACKWALL, 1833)	2			2
<i>Walckenaeria furcillata</i> (MENGE, 1869)	1	2		3
<i>Walckenaeria incisa</i> (O.P.-CAMBRIDGE, 1871)	1			1
Family Linyphiidae				
Subfamily Linyphiinae				
<i>Agyneta cauta</i> (O.P.-CAMBRIDGE, 1902)		1		1
<i>Agyneta conigera</i> (O.P.-CAMBRIDGE, 1863)	1			1
<i>Asthenargus paganus</i> (SIMON, 1884)	1			1
<i>Bathyphantes gracilis</i> (BLACKWALL, 1841)	1			1
<i>Bathyphantes nigrinus</i> (WESTRING, 1851)	2		1	3
<i>Centromerus aequalis</i> (WESTRING, 1851)	28		3	31
<i>Centromerus leruthi</i> FAGE, 1933	1			1
<i>Centromerus sylvaticus</i> (BLACKWALL, 1841)	2			2
<i>Formiphantes lepthyphantiformis</i> (STRAND, 1907)		1		1
<i>Linyphia triangularis</i> (CLERCK, 1757)	1			1
<i>Macrargus rufus</i> (WIDER, 1834)	1	13		14
<i>Meioneta saxatilis</i> (BLACKWALL, 1844)	1		1	2
<i>Microneta viaria</i> (BLACKWALL, 1841)	3	4		7
<i>Neriene clathrata</i> (SUNDEVALL, 1829)	6	1	1	8
<i>Palliduphantes ericaeus</i> (BLACKWALL, 1853)		1		1
<i>Palliduphantes pallidus</i> (O.P.-CAMBRIDGE, 1871)	1		1	2
<i>Porrhomma egeria</i> SIMON, 1884	1			1
<i>Saaristoa abnormis</i> (BLACKWALL, 1841)	1	4		5
<i>Sintula cornigera</i> (BLACKWALL, 1856)	2		1	3
<i>Tapinopa longidens</i> (WIDER, 1834)	1			1
<i>Tenuiphantes cristatus</i> (MENGE, 1866)	2			2
<i>Tenuiphantes flavipes</i> (BLACKWALL, 1854)	18	6	1	25
<i>Tenuiphantes mengei</i> KULCZYNSKI, 1887			10	10
<i>Tenuiphantes tenebricola</i> (WIDER, 1834)	1			1
<i>Tenuiphantes tenuis</i> (BLACKWALL, 1852)	1			1
<i>Tenuiphantes zimmermanni</i> BERTKAU, 1890	7	3	1	11
Total	435	187	147	769
Number of species	58	36	32	79

2000), Norway (Aakra & Hauge, 2000), Portugal (Cardoso, 2000), Sweden (Kronestedt, 2001), Bulgaria (Deltshev & Blagoev, 2001), Denmark (Langemark, 2000), Roumania (Weiss & Urak, 2000), Finland (Savela, 2002) and it is, next to Belgium, only present in Germany, Austria and Switzerland (Heimer & Nentwig, 1991), Hungary (Samu & Szinetar, 1999), Poland (Starega, 2004), Czech Republic (Buchar & Ruzicka, 2002), Estonia (Michailov, 1998), Lithuania (Rėlys, 1996), mainland Italia (Pesarini, 1995), Slovenia and Slovakia (Gajdos *et al.*, 1999).

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***Callidiellum rufipenne* (Motschulsky, 1860) nieuw voor België (Coleoptera, Cerambycidae)**

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Abstract

***Callidiellum rufipenne* (Coleoptera, Cerambycidae) new to Belgium.** *Callidiellum rufipenne* is, for the first time, recorded from Belgium. Informations about, detection, biology, geographical distribution, hostplants and hostpest significance are presented.

Résumé

***Callidiellum rufipenne* (Coleoptera, Cerambycidae)** est mentionnée ici pour la première fois en Belgique. Des informations concernant la biologie, la distribution géographique, les plantes hôtes et la nocuité sont données.

Vindplaats

Een mannelijk exemplaar van *Callidiellum rufipenne* werd door mij in huis gevonden (België – Antwerpen – Ekeren – UTM ES9881) dd.2006-05-04 en gedetermineerd door Toon Keukelaar (beetle stitch@planet.nl) een specialist op gebied van o.a. Cerambycidae. De vindplaats

bevindt zich op ongeveer 4 km in vogelvlucht van de haven van Antwerpen waar ook verscheidene houtsoorten ontscheept worden. In de onmiddellijke omgeving zijn er geen grote tuinbouw-bedrijven. In de omgeving van de vindplaats staan Chamaercypressen (o.a. een aantal die vorig jaar teruggesnoeid werden tot ongeveer 10 m), *Pinus walichiana*, *Abies* en een