# **Opiliones in Belgium**



Luc Vanhercke

(date of publication 14.VI.1999)

#### Introduction

While the belgian community of eight-legged animals shudders with fear in view of the next excursion of the flourishing <u>Arabel</u> (Arachnologia Belgica), one little group keeps his peace of mind: the Harvestmen. The majority of arachnologists has lost interest since some simple youth experiments with the legs. I couldn't beat the knowledge of the Arabel-people, so I took the Opiliones as my territory.

Dr. Baert (Royal Institute of Natural Sciences) kindly put the relevant collections at my disposal. Although Opiliones were never the object of a sampling session, the bottles were rich enough to keep me happy for several years on row. I added some material from my own entomological studies and from the former Laboratory of Oecology (State University Ghent).

When finally the number of Opiliones minded people doubled with W. Slosse, I knew that distribution maps with not too many blancs where within reach. His umbrella sampling-method is very succesful, as proved by the explosion of recent observations in the western part of the country.

### **Species list and Distribution maps**

#### **Trogulidae**

Anelasmocephalus cambridgei (Westwood)

<u>Trogulus nepaeformis (Scopoli)</u>

Trogulus tricarinatus (Linnaeus)

#### **Phalangiidae**

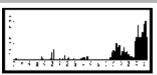
Homalenotus quadridentatus (Cuvier)
Rilaena triangularis (Herbst)
Platybunus pinetorum (C.L.Koch)
Phalangium opilio Linneaus
Opilio parietinus (Degeer)
Opilio canestrinii (Thorell)
Opilio saxatilis (C.L.Koch)
Mitopus morio (Fabricius)
Lacinius ephippiatus (C.L.Koch)
Lacinius horridus (Panzer)

#### Nemastomatidae

Mitostoma chrysomelas (Hermann)
Paranemastoma quadripunctatum (Perty)
Nemastoma bimaculatum (Fabricius)
Nemastoma lugubre (Müller)

Lophopilio palpinalis (Herbst)
Odiellus spinosus (Bosc)
Paroligolophus agrestis (Meade)
Oligolophus hansenii (Kraepelin)
Oligolophus tridens (C.L.Koch)
Leiobunum rotundum (Latreille)
Leiobunum blackwalli Meade
Amilenus aurantiacus (Simon)
Dicranopalpus ramosus (Simon)

## Some words about the samples



In short:

We have almost no old observations.

Recent sampling forgets the southern part of the country. Read more about the samples

### More about the number of species



In short:

The species richness is mostly a reflection of the sampling effort.

Maps and discussion

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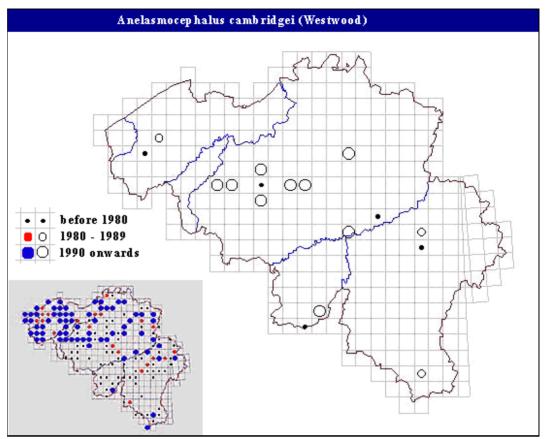
## The legit names

I would be nowhere without the collections of the Royal Institute of Natural Sciences and the people submitting their samples. If you ever donated even only one sample to the R.I.N.S., your name can be on this list.

### The Arachnological Hub of the World Wide Web

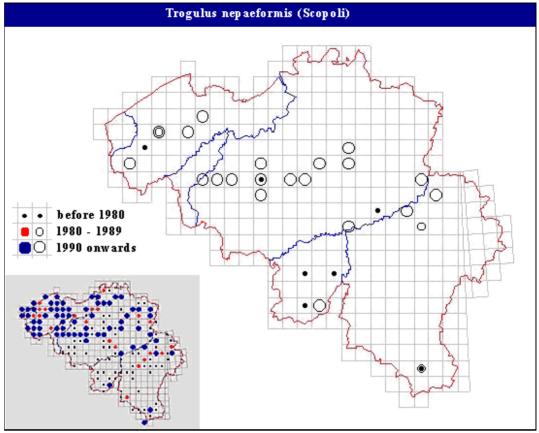
Visit the Arachnological Hub of the World Wide Web

Path: Opiliones in Belgium



inset: latest sample in square; map based on data known in July 1998 Show me the map of August 1997

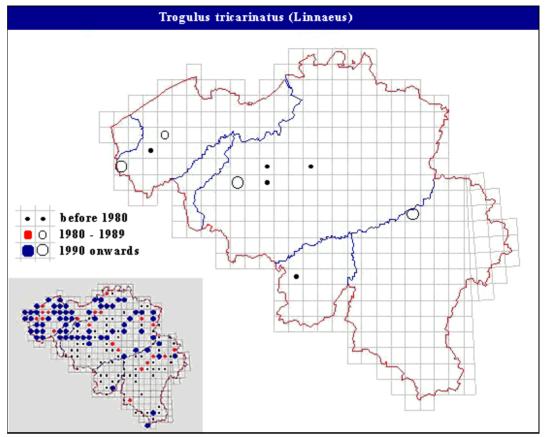
Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Anelasmocephalus cambridgei (Westwood)



inset: latest sample in square; map based on data known in July 1998

Show me the map of August 1997

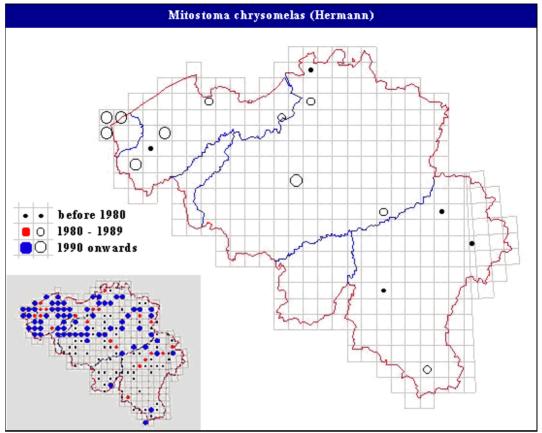
Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Trogulus nepaeformis (Scopoli) e-mail: <u>Luc Vanhercke</u>



inset: latest sample in square; map based on data known in July 1998

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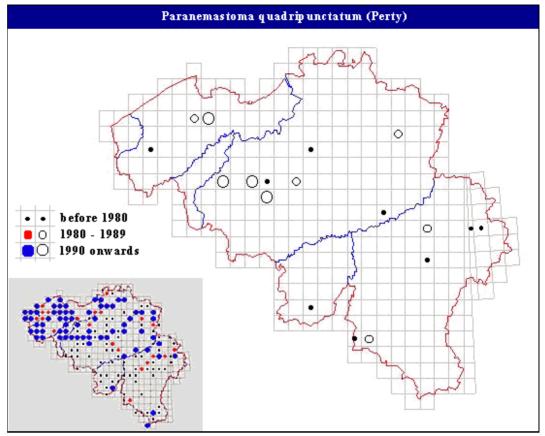
Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Trogulus tricarinatus (Linnaeus) e-mail: <u>Luc Vanhercke</u>



inset: latest sample in square; map based on data known in July 1998

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Path: <u>Home</u> / <u>Opiliones in Belgium</u> / <u>Mitostoma chrysomelas (Hermann)</u> e-mail: <u>Luc Vanhercke</u>

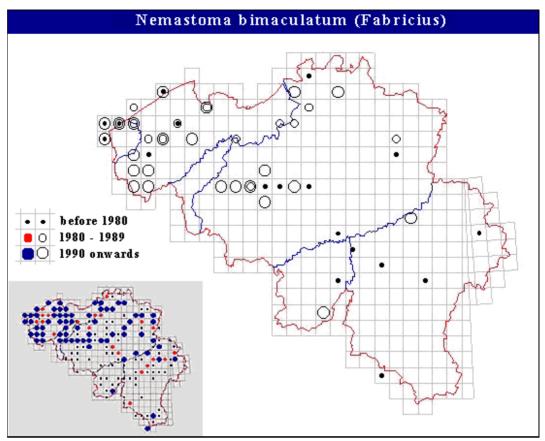


inset: latest sample in square; map based on data known in July 1998

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Path: Home / Opiliones in Belgium / Paranemastoma quadripunctatum (Perty) e-mail: Luc Vanhercke

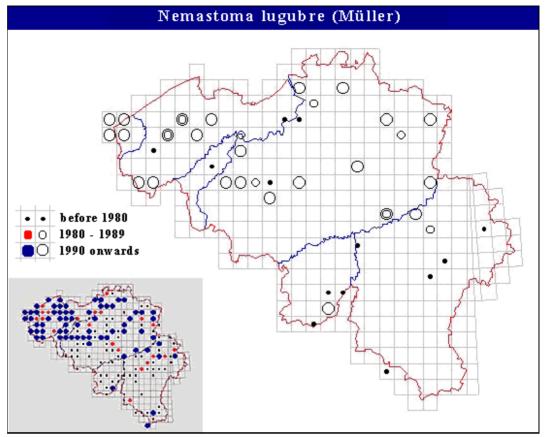
e-man. <u>Luc valinercke</u>



inset: latest sample in square; map based on data known in July 1998

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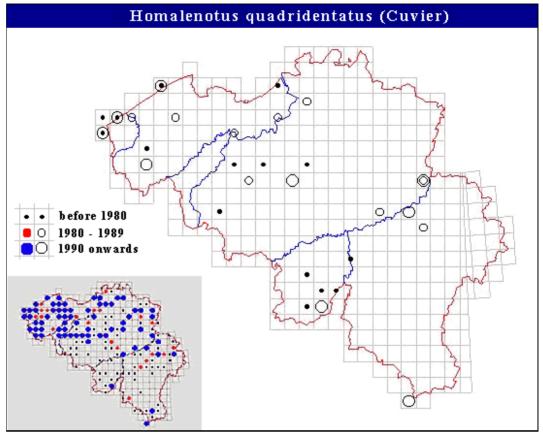
Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Nemastoma bimaculatum (Fabricius) e-mail: <u>Luc Vanhercke</u>



inset: latest sample in square; map based on data known in July 1998

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Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Nemastoma lugubre (Müller) e-mail: <u>Luc Vanhercke</u>

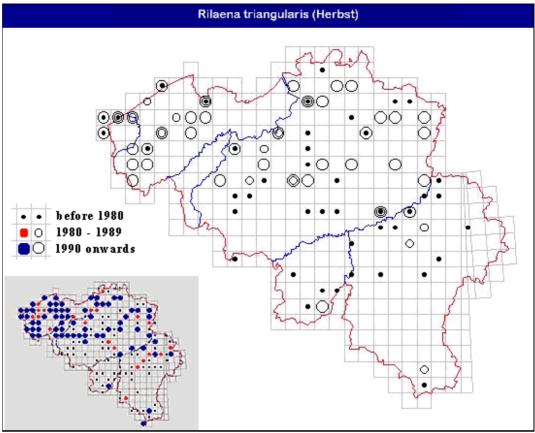


inset: latest sample in square; map based on data known in July 1998

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Path: Home / Opiliones in Belgium / Homalenotus quadridentatus (Cuvier) e-mail: Luc Vanhercke

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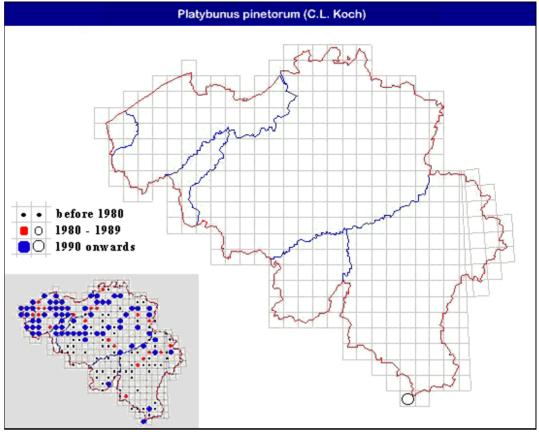


inset: latest sample in square; map based on data known in July 1998

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Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Rilaena triangularis (Herbst) e-mail: <u>Luc Vanhercke</u>

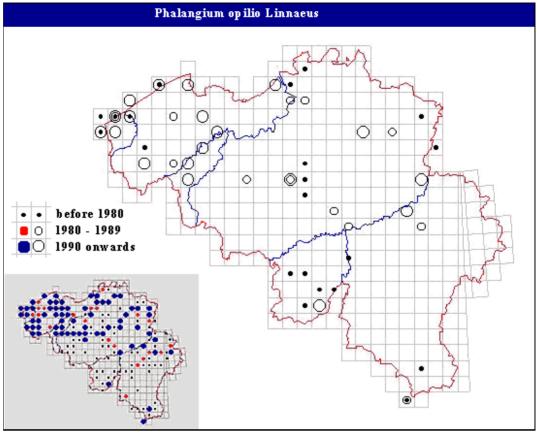
Ony one female: FQ78: 16.VI.1992 Torgny forest leg. Léon Baert det. Luc Vanhercke



inset: latest sample in square; map based on data known in July 1998

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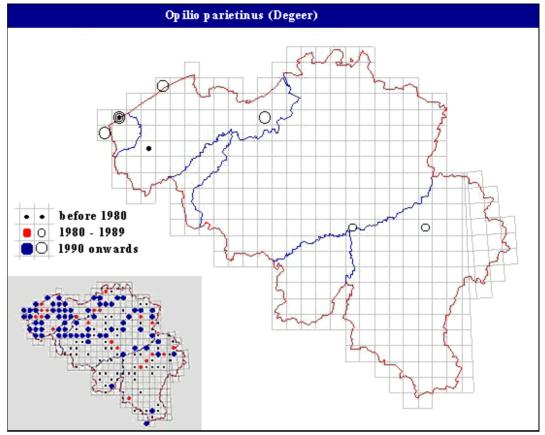
Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Platybunus pinetorum (C.L.Koch) e-mail: <u>Luc Vanhercke</u>



inset: latest sample in square; map based on data known in July 1998

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Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Phalangium opilio Linneaus e-mail: <u>Luc Vanhercke</u>



inset: latest sample in square; map based on data known in July 1998

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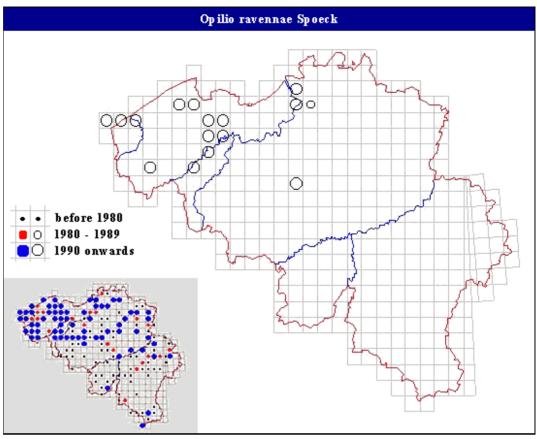
Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Opilio parietinus (Degeer) e-mail: <u>Luc Vanhercke</u>

#### First specimen:

FS07; IX.1983 leg. H. Vanuytven det. W. Slosse

#### **Second specimen:**

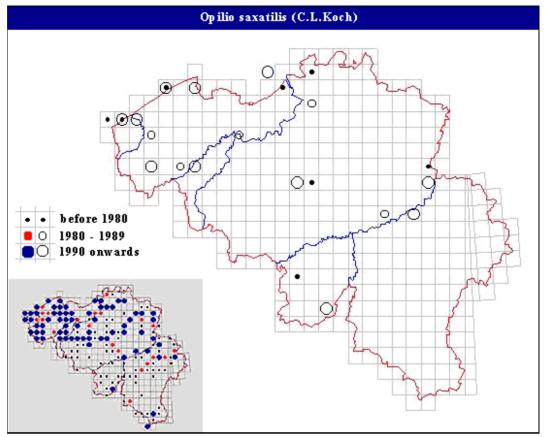
ES92; 19.X.1992 leg. R. Kekenbosch det L. Vanhercke coll. KBIN



inset: latest sample in square; map based on data known in July 1998

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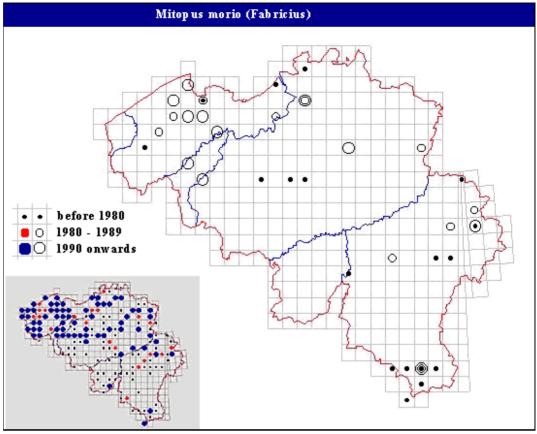
Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Opilio canestrinii (Thorell) e-mail: <u>Luc Vanhercke</u>



inset: latest sample in square; map based on data known in July 1998

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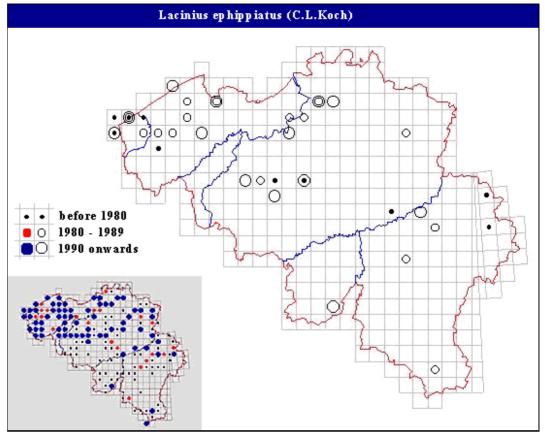
Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Opilio saxatilis (C.L.Koch) e-mail: <u>Luc Vanhercke</u>



inset: latest sample in square; map based on data known in July 1998

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Path: <u>Home</u> / <u>Opiliones in Belgium</u> / <u>Mitopus morio</u> (Fabricius) e-mail: <u>Luc Vanhercke</u>

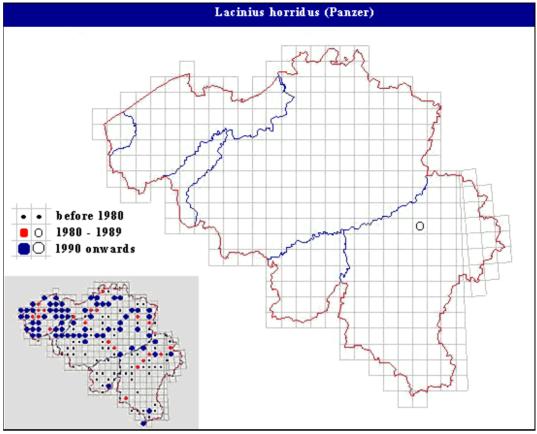


inset: latest sample in square; map based on data known in July 1998

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FR89; pit-fall captures from Xhoris-Ferrières between 22.IV and 29.VII.1983 14 ex. coll. KBIN & lv

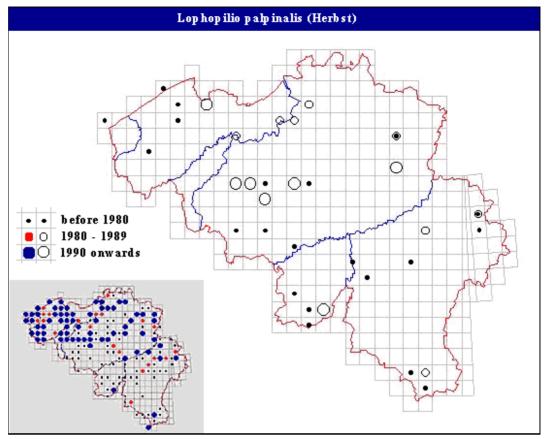


inset: latest sample in square; map based on data known in July 1998

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Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Lacinius horridus (Panzer) e-mail: <u>Luc Vanhercke</u>

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inset: latest sample in square; map based on data known in July 1998

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Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Lophopilio palpinalis (Herbst)

e-mail: <u>Luc Vanhercke</u>

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**DS76**: Koksijde, 15.X.1990;

1 fem.

leg. & det. W. Slosse

**FS70**: Chokier, pit-fall; many

from 17.V.1991 -

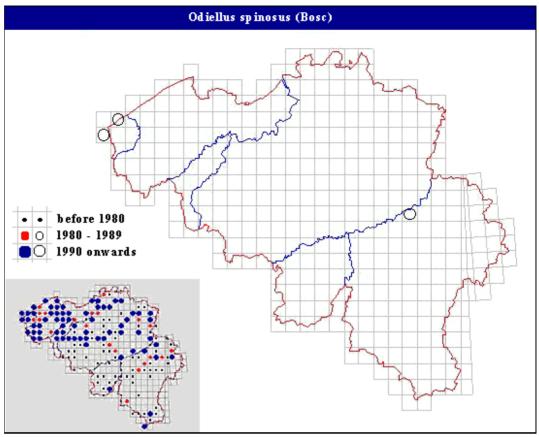
20.III.1992

leg. R. Detry det. L. Vanhercke

**DS76**: 1 ind. captured during 1993 and 1994 leg. & det. W. Slosse

**DS76** and **DS65**: 1995 18 ind. with umbrella-method leg. & det. W. Slosse

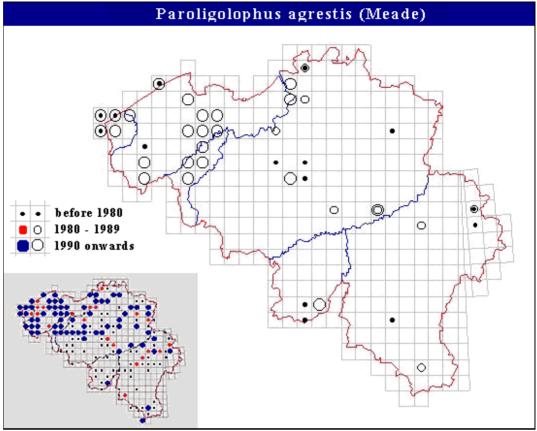
No observations in 1996



inset: latest sample in square; map based on data known in July 1998

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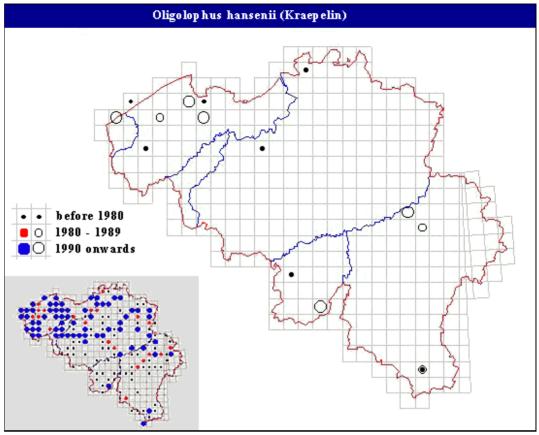
Path: <u>Home</u> / <u>Opiliones in Belgium</u> / <u>Odiellus spinosus (Bosc)</u> e-mail: <u>Luc Vanhercke</u>



inset: latest sample in square; map based on data known in July 1998

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Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Paroligolophus agrestis (Meade) e-mail: <u>Luc Vanhercke</u>

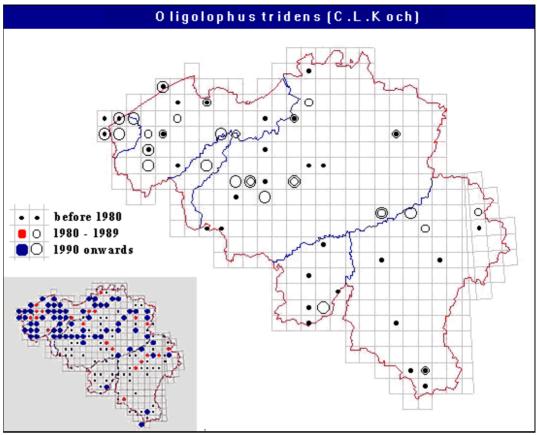


inset: latest sample in square; map based on data known in July 1998

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Path: <u>Home</u> / <u>Opiliones in Belgium</u> / <u>Oligolophus hansenii</u> (Kraepelin) e-mail: <u>Luc Vanhercke</u>

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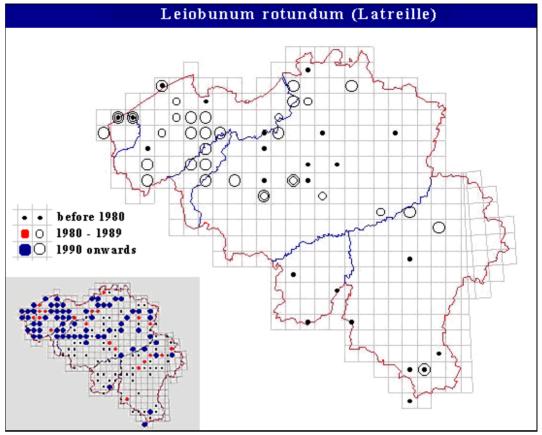


inset: latest sample in square; map based on data known in July 1998

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Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Oligolophus tridens (C.L.Koch) e-mail: <u>Luc Vanhercke</u>

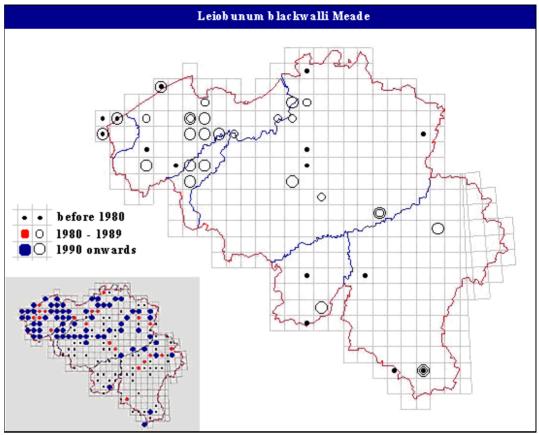
1 of 1 09/05/2004 17:50



inset: latest sample in square; map based on data known in July 1998

Show me the map of August 1997

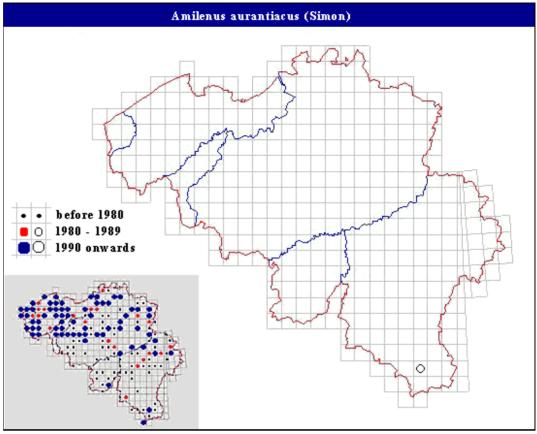
Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Leiobunum rotundum e-mail: <u>Luc Vanhercke</u>



inset: latest sample in square; map based on data known in July 1998

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Path: <u>Home</u> / <u>Opiliones in Belgium</u> / <u>Leiobunum blackwalli Meade</u> e-mail: <u>Luc Vanhercke</u>



inset: latest sample in square; map based on data known in July 1998

Show me the map of August 1997

Path: <u>Home</u> / <u>Opiliones in Belgium</u> / Amilenus aurantiacus (Simon) e-mail: <u>Luc Vanhercke</u>

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#### **DS76**

VI-X.1996; Koksijde leg. W. Slosse

#### **DS66**

X.1996; De Panne leg. D. Bonte

#### **ES17**

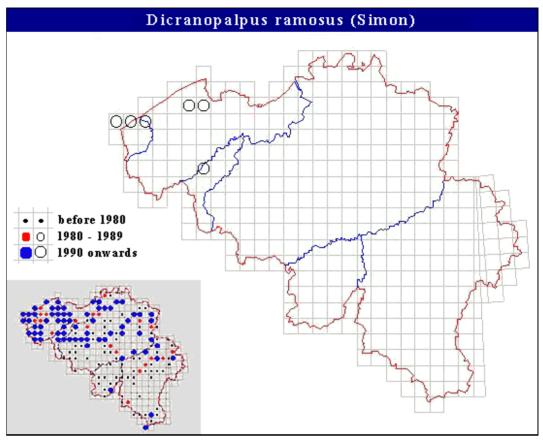
15.X.1995; St-Andries-Brugge leg. L. Vanhercke

#### **ES27**

11.X.1996; Ryckevelde leg. I. Hoste

#### **ES23**

1997; several places leg. M. Tailly



inset: latest sample in square; map based on data known in July 1998

Show me the map of August 1997

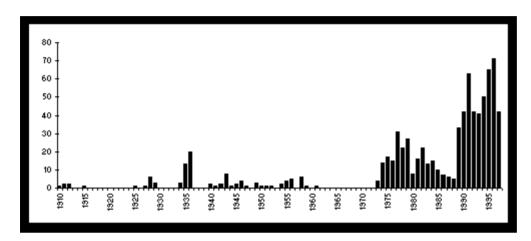
Path: <u>Home</u> / <u>Opiliones in Belgium</u> / <u>Dicranopalpus ramosus (Simon)</u> e-mail: <u>Luc Vanhercke</u>

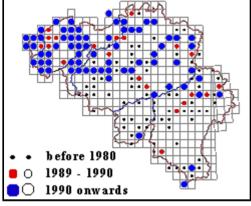
1 of 1 09/05/2004 17:52

## Opiliones in Belgium: a word about the samples

Our Opiliones clearly don't face extinction caused by intensive sampling. The graph shows the number of samples from each year starting with the oldest bottle I have seen.

The first captured (and preserved in the collections in the Institute) is a male *Trogulus nepaeformis* taken on April 29th of 1910 in Hastière (UTM=FR26). There was no legit-name on the label. This first male did not gave birth to a wide interest in Belgian Opiliones. For many years harvestmen were only sampled by accident, it seems. It took sixty more years before they were studied on a more regular base. And even now the number of data is not really impressive. I resisted the temptation to add recent year-round pitfall actions: they count for only one sample.





A further point is that we have almost no

information on the southern part of the country.

My conclusion is that the maps on this site give

only a picture of our sampling effort and nothing

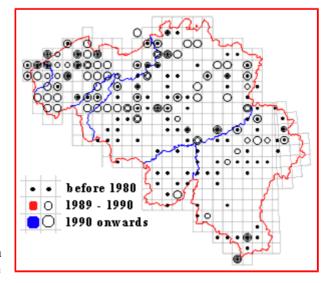
more. When a map shows a species present in some square, we know it is there. The reverse is

not true.

Because we can safely state that we have no real

information on the years before 1975, the

Although the situation did improve, we still have no reason for outburst in congratulations. The map (left) shows when a square has been sampled for the last time. For many squares this coincides with the first time! Check it out on the map below. Only 12 squares have been sampled in all three periods. A meagre 35 enjoyed two times the visit of an opilionologist.



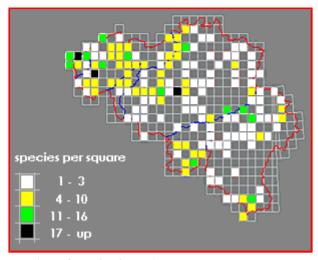
l of 2 09/05/2004 17:52

maps are not suited for studies on trends. Take f.e. <u>Trogulus nepaeformis</u>. The map suggests big succes for this formerly rare species. You know better: we simply put some targetted pitfalls during 1997.

Path: Home / Opiliones in Belgium / Some words about the samples

e-mail: Luc Vanhercke

## Opiliones in Belgium: number of species



Number of species in each square Based on data known july 1998

Really nothing exceptional if you remember the section on sampling. Most visited squares are sampled only once, and not with harvestmen in mind.

The extremely rich (black) squares are easily explained. They are (from left to right) where W. Slosse had pitfalls, where I had pitfalls during the eighties and where R. Kekenbosch still continues his pitfall campaign.

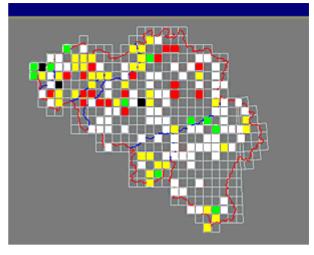
Green squares stand mostly for campaigns where the positioning of the pitfalls did not cover the whole diversity of the site.

Yellow squares are easy: use the umbrella, or visit a second time.

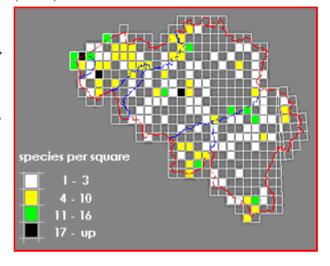
My conclusion is that the species richness as we see it today is a reflection of our sampling effort and nothing more

Every species is probably present in every square.

I love numbers; show me the map with the numbers.



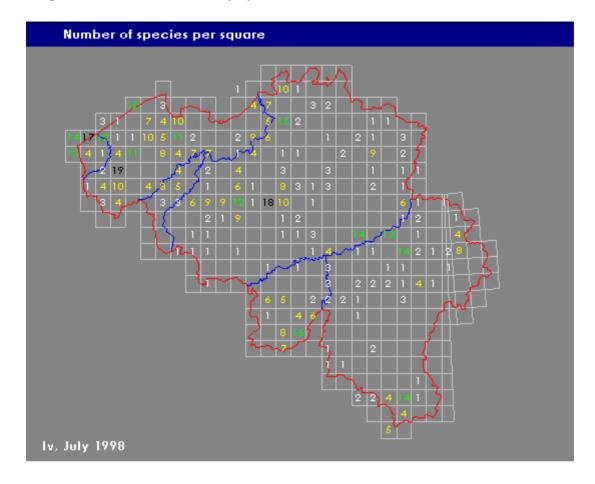
Red squares have changed since september 1997 Number of species in each square as known in 1997 (below)



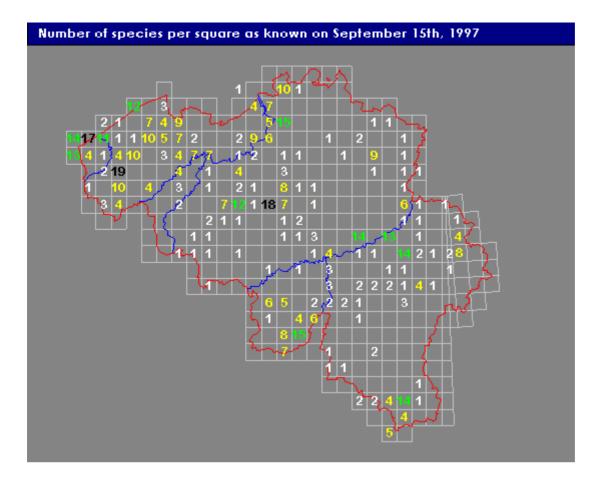
Path: <u>Home</u> / <u>Opiliones in Belgium</u> / map with number of species e-mail: <u>Luc Vanhercke</u>

## **Opiliones in Belgium: number of species**

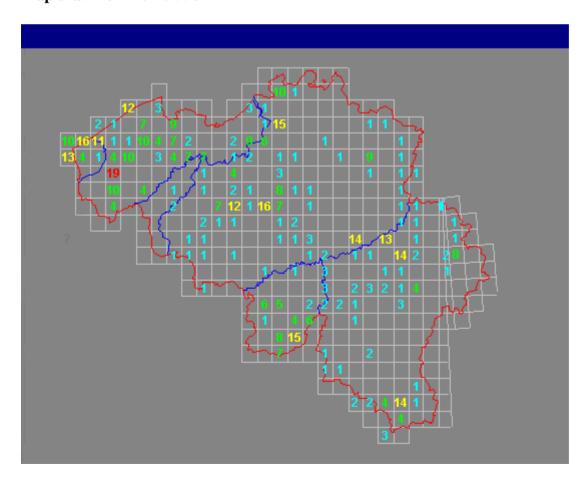
Map based on data known in july 1998



Map drawn on 15.IX.1997



Map drawn on 21.XI.1996



Path: Home / Opiliones in Belgium / map with number of species

e-mail: <u>Luc Vanhercke</u>

# **Opiliones in Belgium:** The legit names

1910-1919	A. Koller (1915)
1920-1929	A. Ball (1925, 1928, 1929), A. Gillat (1927)
1930-1939	S. Jacquemart (1934, 1935, 1954, 1955), J.M. Vrijdagh (1936, 1956)
1940-1949	Catelin (1943), A. Collart (1941, 1942, 1943, 1946, 1949), R. Laurent (1940), N. Leleup (1946), G. Marlier (1947), J. Verschueren (1944)
1950-1959	G. Demoulin (1955), E. Derenne (1958), J. Doucet (1951, 1961), V. Hendrickx (1956), Hoevenagel (1959), D. Streel (1956), F. Van Camberg (1956)
1960 onward	A. Anselin, D. Bonte, R. Bosmans, K. Decleer, K. Desender, P. Dessart, R. Detry, J. De Walsche, A. Doucet, J. Doucet, T. Dewitte, C. Fassotte, L. Giltay, R. Goossens, G. Haghebaert, I. Hoste, Dienst Huble, A. Huysseune, R. Kekenbosch, Liane, N. Magis, M. Meisch, A. Muylaert, M. Pollet, C. Puts, J. Schuyts, R. Segers, W. Slosse, M. Tailly, L. Vanhercke, H. Vanuytven, P. Verdyck, Wendelen.

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