

A modern Atlas of Nottinghamshire Harvestmen

Trevor and Dilys Pendleton



Introduction

This modern Atlas of Nottinghamshire Harvestmen, broadly follows the same format as used in our other 'A modern Atlas of' publications. Its aim is to provide an up to date and accurate modern day Atlas of species, including short accounts on range, distribution and habitat of Nottinghamshire's *Opilione* (Harvestmen) fauna.

There are currently around 30 known species of Harvestmen found in the UK, following some recent additions. Of these, some 21 species have been reliably recorded in Nottinghamshire since the turn of the present century.

Only two species (*Lacinius ephippiatus* and *Paroligolophus meadii*) are not illustrated in this publication, but their corresponding distribution maps are provided, based on records made available to us.

Recording Harvestmen

Recording Harvestmen offers the urban-based naturalist, the chance to find a range of species. One advantage of undertaking their study and identification, is that they are commonly found around human habitation, so it is not always necessary to have to travel any distance to find them. Few Harvestmen are confined to specific habitat types and several species will easily be found in most gardens over the course of a year.

In recent years, we have devoted a considerable amount of time and effort recording the Harvestmen found within Nottinghamshire (VC56) being unexpectedly rewarded in 2009, with the discovery of the UK's first record of the still scientifically un-named *Leiobunum* sp. A, found (of all places) on a housing estate in Worksop.

Harvestmen (Opiliones) species list for Nottinghamshire (VC56)

The following list of species are confirmed as being recorded from Nottinghamshire, as of October 2015. There are post-2000 records for all species listed.

Nemastomatidae

Mitostoma chrysomelas (Fabricius, 1775)

Nemastoma bimaculatum (Hermann, 1804)

Phalangiidae

Lacinius ephippiatus (C.L. Koch, 1835)

Lophopilio palpinalis (Herbst, 1799)

Megabunus diadema (Fabricius, 1779)

Mitopus morio (Fabricius, 1779)

Odiellus spinosus (Bosc, 1792)

Oligolophus hansenii (Kraepelin, 1896)

Oligolophus tridens (C.L. Koch, 1836)

Opilio canestrinii (Thorell, 1876)

Opilio parietinus (De Geer, 1778)

Opilio saxatilis (C.L. Koch, 1839)

Paroligolophus agrestis (Meade, 1855)

Paroligolophus meadii (O.P.-Cambridge, 1890)

Phalangium opilio (Linnaeus, 1758)

Platybunus triangularis (Herbst, 1799)

Leiobunidae

Dicranopalpus ramosus (Simon, 1909)

Leiobunum blackwalli (Meade, 1861)

Leiobunum rotundum (Latreille, 1798)

Leiobunum sp. A (Schönhofer & Hillen 2008, Toss 2009, Wijnhoven et al. 2007)

Nelima gothica (Lohmander, 1945)

Species accounts

Nemastomatidae

Mitostoma chrysomelas (Fabricius, 1775)

A small, leggy Harvestman with a body length of around 3mm. This is an inconspicuous species and at first glance may give the impression of a juvenile *Leiobunum*. The adults can be found under logs or amongst leaf litter.

An uncommon Nottinghamshire Harvestman. There are records from Sherwood Forest in 1978 and two post-2000 records, plus a record from Bunny Old Wood (per Nottinghamshire Wildlife Trust) in 1986, but the recorder is unknown.

Nemastoma bimaculatum (Hermann, 1804)

Found commonly under logs and within leaf litter in the Sherwood Forest and Clumber Park areas, but it is probably widespread in many wooded habitats throughout much of Nottinghamshire. We have recorded *Nemastoma bimaculatum* under logs within agricultural land near Market Warsop, well away from woodland.

It's small size, coupled with the fact that they often do not move for several minutes when disturbed, means that they can easily be missed.

Phalangidae

Lacinius ephippiatus (C.L. Koch, 1835)

Not illustrated. Seemingly an uncommon/rare Harvestman in Nottinghamshire. There are recent records from Annesley Woodhouse Quarry (Williams, H. 1999), the Idle Valley Nature Reserve (Williams, H. 2000) and Misson Carr (Williams, H. 2006).

Lophopilio palpinalis (Herbst, 1799)

Nottinghamshire records of *Lophopilio palpinalis* suggest that this is largely a Harvestman of deciduous woodland. There are few records, the most recent all coming from Sherwood Forest between 2003 and 2011. There is an isolated 1990 record from Bunny Old Wood (per Nottinghamshire Wildlife Trust) although the recorder is unknown.

Megabunus diadema (Fabricius, 1779)

This Harvestman is perhaps the most well marked and distinctive of all our native species, relatively small (3mm body) size. Its cryptic markings mean that it is often well camouflaged on the trunks of lichen and moss covered trees it is said to favour.

We searched many Nottinghamshire woodlands for this elusive Harvestman, eventually finding it in an area of coppiced woodland at Wellow Park in 2012 and Gamston Wood near Retford in 2013. Further surveys have proved *Megabunus diadema* to be easiest to find on the smooth trunks of coppiced Ash, growing along small wooded paths that allow some sun to come through. A fast moving species which can be difficult to approach.

There is a single Sherwood Forest record, from Sherwood Heath SSSI (Godfrey, A.) in 2006.

Mitopus morio (Fabricius, 1779)

A common Harvestman, usually found in well vegetated sites and woodlands. It is widespread across Nottinghamshire, being especially well recorded from the Sherwood Forest and Clumber Park areas, but there are few records from along the Trent Valley.

Odiellus spinosus (Bosc, 1792)

A large bodied and relatively short-legged species, *Odiellus spinosus* is most often found in gardens and low on the walls of houses and other buildings in urban areas. Personally, we have yet to record it away from urbanised areas in the western-half of Nottinghamshire, but there is a record from Sherwood Forest CP (Denton, M. L. et al) in 2002.

Oligolophus hanseni (Kraepelin, 1896)

From our own records, this is not a common Harvestman in Nottinghamshire. *Oligolophus hanseni* is perhaps easy to over look among several commoner species and can be generally difficult to distinguish. Probably quite widespread in Nottinghamshire and very much under-recorded, yet the current distribution map suggests otherwise.

Recent records have come from Peafield Lane (Pendleton, T. A. and Pendleton, D. T.) in 2014, Rainworth Heath (Williams, H.) in 2008, Ollerton Cemetery (Pendleton, T. A. and Pendleton, D. T.) in 2009, Sherwood Forest CP (Williams, H.) in 2003, and the Idle Valley Nature Reserve (Williams, H.) in 1997.

Oligolophus tridens (C.L. Koch, 1836)

Generally common and widespread throughout Nottinghamshire and found in a variety of habitats, which includes suburban areas.

Opilio canestrinii (Thorell, 1876)

Opilio canestrinii is an invasive species which arrived in Nottinghamshire as recently as 2010 (Pendleton, T. A. and Pendleton, D. T.) but is likely to have been present at least several years earlier. It is often found in gardens and on the walls of buildings and is certainly commonest in urban areas.

In some parts of the UK, *Opilio canestrinii* seems to have replaced *Opilio parietinus*, but we have yet to record any evidence of this in Nottinghamshire and the two species can often be found sharing the same wall. Still less widespread than *Opilio parietinus* in Nottinghamshire.

Opilio parietinus (De Geer, 1778)

A large long-legged Harvestman, most often found resting on the walls of buildings. Most records are from urban areas in the Mansfield and Worksop areas. *Opilio parietinus* is thought to be species in serious decline, due to the presence of the invasive *Opilio canestrinii* (see above text).

Its present UK status seems largely unknown, but is believed by some authorities to become extinct at sometime. However, there is currently no indication of this in Nottinghamshire.

Opilio saxatilis (C.L. Koch, 1839)

Uncommon in Nottinghamshire and seemingly restricted to dry, sandy soils. There are just four recent records, from Market Warsop, Ollerton Cemetery and Mansfield (all Pendleton, T. A. and Pendleton, D. T.) and Harrison's Plantation near Eakring (per Nottinghamshire Wildlife Trust) but the recorder is unknown.

Paroligolophus agrestis (Meade, 1855)

A very common Harvestman found throughout Nottinghamshire. *Paroligolophus agrestis* is found in all habitat types, including urban gardens. It can be looked for on walls, tree trunks, amongst leaf litter and under logs etc. Adults can sometimes be found well into January and February, during mild Winters.

Paroligolophus meadii (O.P.-Cambridge, 1890)

Not illustrated. The only Nottinghamshire records are from Sherwood Heath SSSI (Godfrey, A.) in 2006 and from Rainworth Heath (Williams, H.) in 2010.

Phalangium opilio (Linnaeus, 1758)

A common and widespread Harvestman, regularly found on the walls of buildings in urban areas, but it does occur in most other habitat types. Recorder bias, probably accounts for the lack of records east of the River Trent.

Platybunus triangularis (Herbst, 1799)

One of the very few Harvestmen found as adults during the Spring. *Platybunus triangularis* (formerly *Rilaena triangularis*) is a common species of woodlands and other well vegetated sites, but it has proved to be common at a range of sites and we have recorded it from urban gardens around Nottingham. Widespread throughout Nottinghamshire, though with few records from sites east of the Trent Valley.

Leiobunidae

Dicranopalpus ramosus (Simon, 1909)

This Harvestman is a relatively new species to the UK. Originally of Mediterranean origin, *Dicranopalpus ramosus* has rapidly increased its range and is now found as far north as Scotland. Nottinghamshire's first record seems to have been from Sherwood Forest CP in 2002 (Denton, M. L. et al) but this is now extremely common species throughout the county and is certainly one of our most widespread Harvestmen.

Leiobunum blackwalli (Meade, 1861)

Common, although not as widespread as the following species. *Leiobunum blackwalli* is typically a Harvestman of well vegetated sites, but the two often share the same habitat and both will occur in urban areas. Often found

resting on the trunks of trees and fence posts.

Leiobunum rotundum (Latreille, 1798)

Leiobunum rotundum is one of our commonest Harvestmen. It is found in a range of habitats, but seems to be a slightly more rural species than *Leiobunum blackwalli*, occurring on low vegetation or on the trunks of trees. It can form loose aggregations on the sheltered aspects of buildings sited in wooded areas.

***Leiobunum* sp. A** (Schönhofer & Hillen 2008, Toss 2009, Wijnhoven et al. 2007)

This large *Leiobunum* Harvestman first appeared in The Netherlands in 2004 and still remains scientifically unidentified to species level. It is believed to have been introduced into Europe via importation and is a very invasive species, quickly forming large congregations numbers many hundreds on the shaded walls of buildings. Records in Germany, Switzerland and Austria came during the following years and France's first record was in 2009, the same year we found the first ever record for the UK, on the wall of a house in Worksop.

It was then found by Paul Richards on a factory wall in Barnsley, Yorkshire in September 2012, before we were finally able to locate this Harvestman again, on the walls of Worksop Priory in October 2012.

Leiobunum sp.A is a dark, extremely long-legged species, much larger than most other *Leiobunum* Harvestmen in the UK, with a leg span of around 100mm. They can be looked for on the shaded walls of houses, Churches and factories etc, where numbers can reach hundreds. They are nocturnal hunters, that could possibly have an affect on some of our native species. Adults can remain active well into December.

Nelima gothica (Lohmander, 1945)

Rare in Nottinghamshire, with few reliable records. Very similar to a *Leiobunum* type Harvestman, but obviously smaller and with pale Trochanters, lighter leg colour. The specimen shown in the photographs is darker than that often depicted in books or on the Internet. Specimens tend to become darker late in the year.

Post 2000 records have come from Rainworth Heath in 2010 (Williams, H.) and Worksop Priory (Pendleton, T.A. and Pendleton, D.T.) in 2015.

A Harvestman new to the UK - *Leiobunum* sp. A at Worksop in 2009

It is perhaps important at this time, to officially document on paper the discovery of *Leiobunum* sp. A, at Worksop in 2009. At the time it represented the first ever record of this Harvestman in the UK.

The history of *Leiobunum* sp. A in Europe

The first records of a large, dark *Leiobunum* Harvestman came from near Nijmegen, The Netherlands in October 2004. Experts using Martens 1978 key, could not identify it as being any north-western or central European species, nor were they able to assign it to any European representative of the genus known to date. Many more additional records were obtained from several localities near to Nijmegen during 2005 and 2006. First records from other European countries are Germany and Austria (2006) Switzerland (2007) and from France in 2009.

It is believed that this Harvestman arrived in Europe via importation. Efforts by Wijnhoven, Schönhofer & Martens to contact several specialists, saw them concentrate on Spain and Northern Africa, and then Mexico and the southern parts of the United States, in order to determine it's origin. All their efforts have so far drawn a blank.

Circumstances of the Worksop record

The specimen was found on the wall of a Worksop house on the Prospect Estate at approximately SK 59226 80970. This is situated off Gloucester Road, immediately north-west of Bassetlaw Hospital. The house is situated in a row of terraced town houses built in the 1970's, with small gardens facing east at the front and west at the back. Both gardens are enclosed, well planted with mature shrubs and conifers and sheltered by fencing. It is a typically designed estate of it's time - a maze of paths and cut grass areas etc. Houses are arranged in short rows facing different directions.

Despite being part of an urban estate, this small garden had previously supplied us with numerous interesting invertebrate records and with a healthy list of Harvestmen including *Odiellus spinosus*, *Oligolophus tridens*, *Opilio canestrinii*, *Opilio parietinus* and *Paroligolophus agrestis*. Surprisingly, we never recorded either *Leiobunum*

rotundum or *Leiobunum blackwalli*, two common, long-legged Harvestmen.

Being familiar with many of Nottinghamshire's Harvestmen for a number of years, a very dark bodied, extremely long-legged *Leiobunum* type Harvestman found on October 13th 2009, immediately stood out as being very different from anything else we had seen before. The Harvestman was found resting on a shady, north-west facing wall in the rear garden of the property, in a quite open position relative to the Ivy growing up the same wall. It was collected and taken home for photographing before being released.

Background of the 2009 Worksop record

Recording and photographing invertebrates, occasionally throws up something obviously very different from what you have seen before, but still remains unidentified despite a great deal of research. The result is that the images get put into the 'unidentified folder' and often sit there for months or even years. Images of this *Leiobunum* type Harvestman taken at Worksop in October 2009 did exactly that. Yet the inability to identify it, probably niggled us more than any other species and the 'unidentified folder' was subsequently opened several times in the intervening period.

In November 2011, a possible breakthrough came whilst searching for images of *Platybunus pinetorum*, a recent addition to the UK species list discovered by Paul Richards at Sheffield in June 2010. Images found during a Google search for the similar looking (to the Worksop specimen) *Leiobunum tisciae*, turned up images of an invasive and unknown *Leiobunum* found in parts Germany, Switzerland, The Netherlands and Austria.

Further research quickly led us to the excellent paper "*An unidentified harvestman Leiobunum sp. alarmingly invading Europe*" (Arachnida: Opiliones) by Hay Wijnhoven, Axel L. Schönhofer & Jochen Martens and published in December 2007. There is a link to this paper at the bottom of this page. One particular image of a male in the paper, seemed to match the Worksop specimen perfectly, so we emailed images of the Worksop specimen to Jochen Martens and Paul Richards for possible identification and confirmation. Both replied back with the conclusion that this is indeed *Leiobunum sp.*

Jochen replied "*Certainly, it is the Leiobunum species presently extending its range within central and now even to NW Europe. Very amazing that it reached the British Isles with so short delay. I understand that only this male was present. This is unusual because in most cases the local population enlarge quite rapidly and form the mass aggregation of which you certainly have seen photographs. But, locally, this may be only the beginning. So, please, keep an eye on the further development and ask around. According to my knowledge, this is the first record in the U.K. Many thanks for informing me (and hopefully so on further records to come)*".

Description and images of the Worksop male *Leiobunum* sp. A

A very large male *Leiobunum* sp. Size difference from *Leiobunum rotundum* and *L. blackwalli* extremely obvious at a glance. Maximum leg span of the Worksop specimen measured at 100mm, compared to an average sized male *Leiobunum rotundum* of 66.0mm. Body length 5.0mm.



A large species, much longer-legged and robust than other *Leiobunum* Harvestmen found in the UK. The body appears dark, almost blackish, but is noticeably dark metallic green, with only a few light markings. There is only minor dimorphism in coloration and dorsal pattern within males and females. Ventrums and Coxae of the legs are

warm pale yellowish to pale light brown, strongly contrasting with the dark Trochanters, legs and dorsum. The legs are conspicuously long and slender, dark brown to black. Females have conspicuous white tips to the tibiae, which darken through age.

The rediscovery of *Leiobunum* sp. A at Worksop in 2012

We had thought that after two years since we first recorded *Leiobunum* sp. A, it would now be sat on most house walls in the area of the original record. In late September 2012 we briefly tried searching the Prospect Estate again and still had no luck. Fine weather over the weekend of October 6-7th 2012, meant that conditions were again suitable, but despite several hours searching Bassetlaw Hospital and Worksop Priory Gatehouse each day we returned home failing to get the target species.

We made another visit to the area on October 13th 2012, a date which was already significant, as it marked the date on which we had first found *Leiobunum* sp. A back in 2009. We actually only realised the closeness of the date when researching and starting to write up the results of our Harvestmen surveys from the previous weekend on October 12th 2012, but it suddenly became an amazing coincidence when we returned to Worksop for one more search.

The weather forecasters had predicted showers on the day, but after being cloudy and dry all morning, the sun began to break through and we thought of going back up to Worksop for another survey and hopefully to find our elusive quarry.

Our first stop was a roadside wall on an industrial estate on Sandy Lane, that we had drove past the week before. We hoped that *Leiobunum* sp. A had possibly originated from one of the units there via importation. Unfortunately, the wall turned out to be devoid of any Harvestmen at all and so we moved on.

Next it was on to Bassetlaw Hospital and then across the road to the Prospect Estate. Again, very thorough coverage of all shaded walls and potentially suitable resting places were searched and although we did find plenty of Harvestmen, none were *Leiobunum* sp. A. By now, we had started to give up hope and looked for somewhere new to search. We tried a couple of old brick built factories on Priorswell Road, before going to have another look on the walls of Worksop Priory and Gatehouse. The Gatehouse once again held a few examples of *Phalangium opilio* and *Opilio parietinus*, but then we found a male *Leiobunum blackwalli* by the door to Worksop Priory.

Not having many photographs of *L. blackwalli*, I took the opportunity to try and obtain more and it was thanks to the extra time spent taking photographs, that Dilys found a much larger Harvestman further along the wall. It was instantly recognisable as being *Leiobunum* sp. A and after much effort, we had finally been rewarded with our target species.

Some documenting photographs were taken, before we carried out a more detailed search of the Priory walls we could access. We were immediately successful and went on to record a total of 13 males and nine females along the southern wall of the Priory. All the *Leiobunum* sp. A we found were more or less at eye level, with only one female found about 20 feet up and they clearly preferred the vertical joints or tight recesses built along the southern side of the Priory walls.

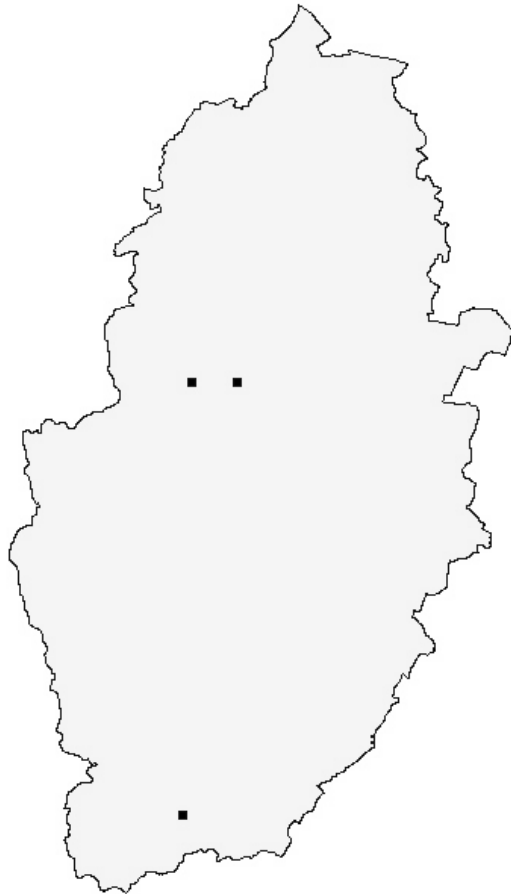
The Nottinghamshire distribution maps

The following distribution maps are compiled from records contributed by the following organisations and individuals.

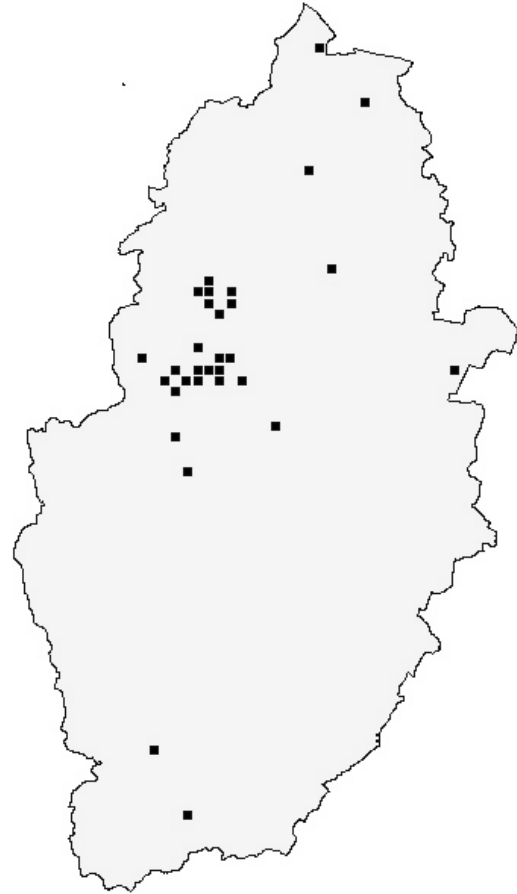
The Nottinghamshire Wildlife Trust, The Netherfield Wildlife Group, Howard Williams, Keith and Belinda Lugg, Richard Rogers, Pauline Bradford, The Sherwood Forest Trust, Keith Alexander, Andy Godfrey, M.L. Denton, Natural England East Midlands, Allan and Annette Binding, Trevor and Dilys Pendleton, Sean Tobin and Nottinghamshire County Council.

We have avoided using historical records, feeling that a modern atlas is more representative of the current distribution of our Opilione fauna and far more useful. It should be noted that there is obvious recorder bias (based on the area where they live) to the distribution maps of many species.

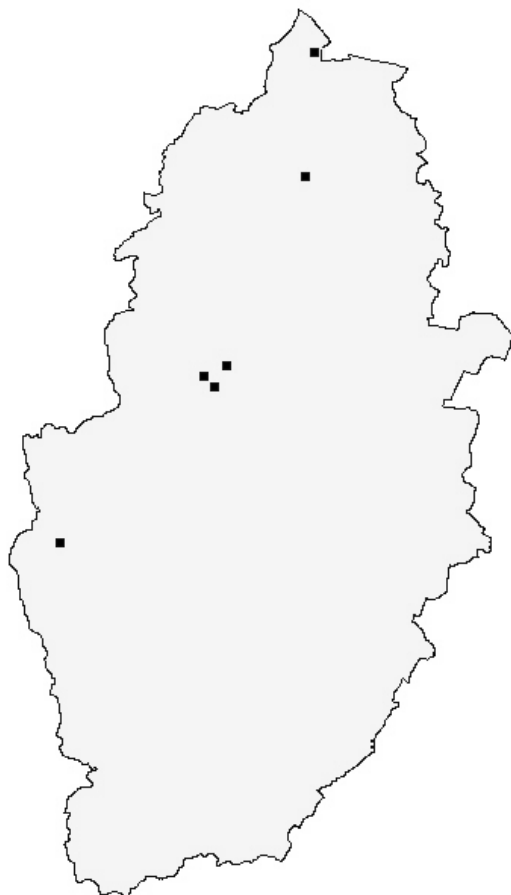
Mitostoma chrysomelas



Nemastoma bimaculatum



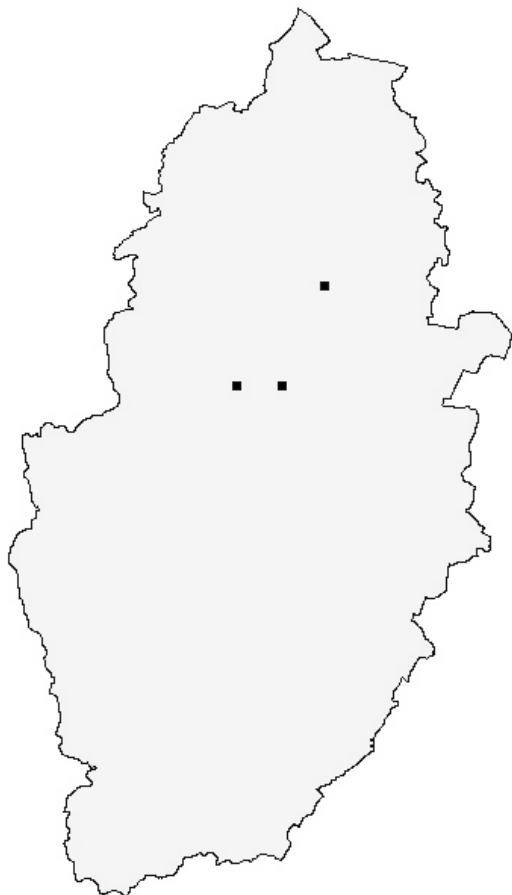
Lacinius ehippiatus



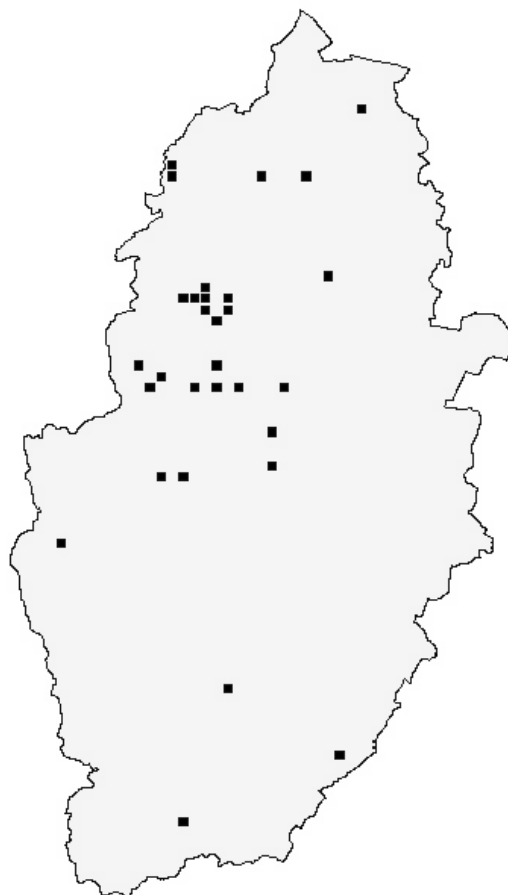
Lophopilio palpinalis



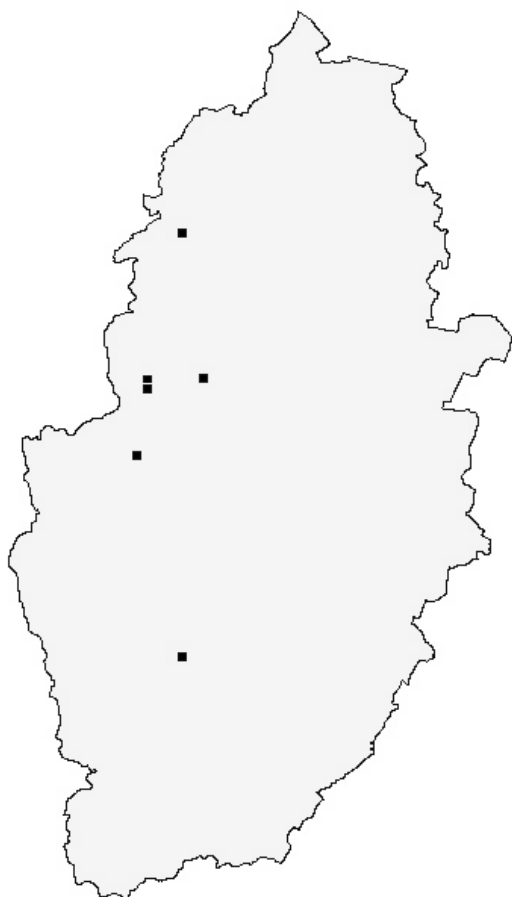
Megabunus diadema



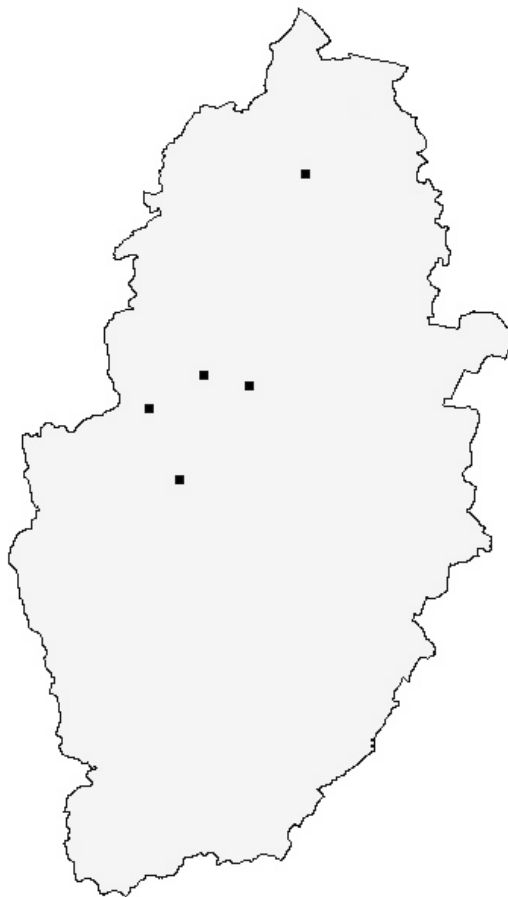
Mitopus morio



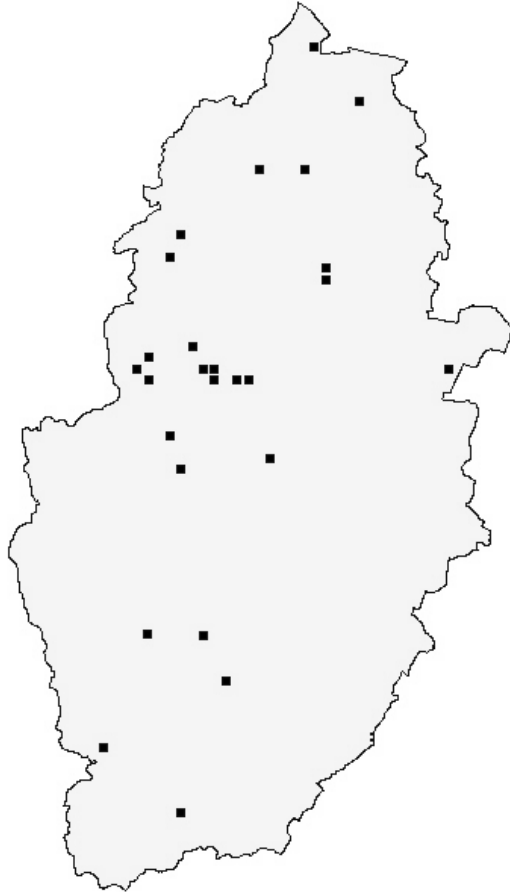
Odiellus spinosus



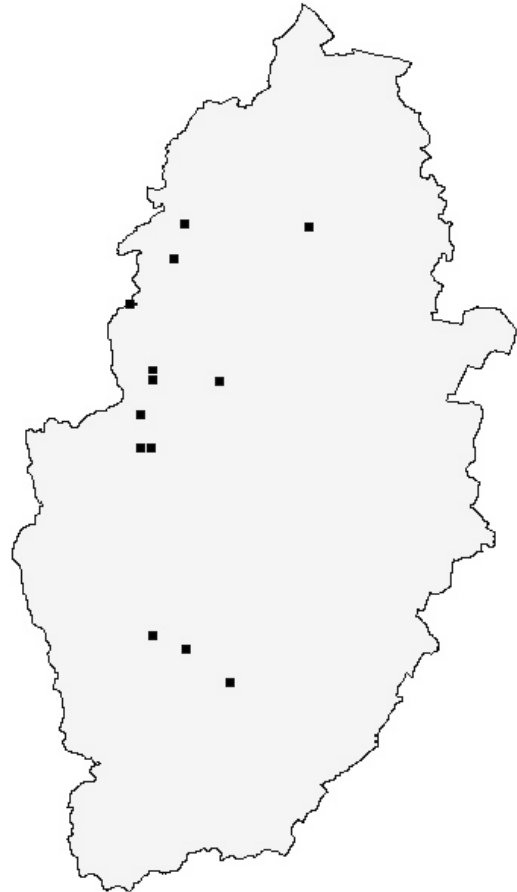
Oligolophus hanseni



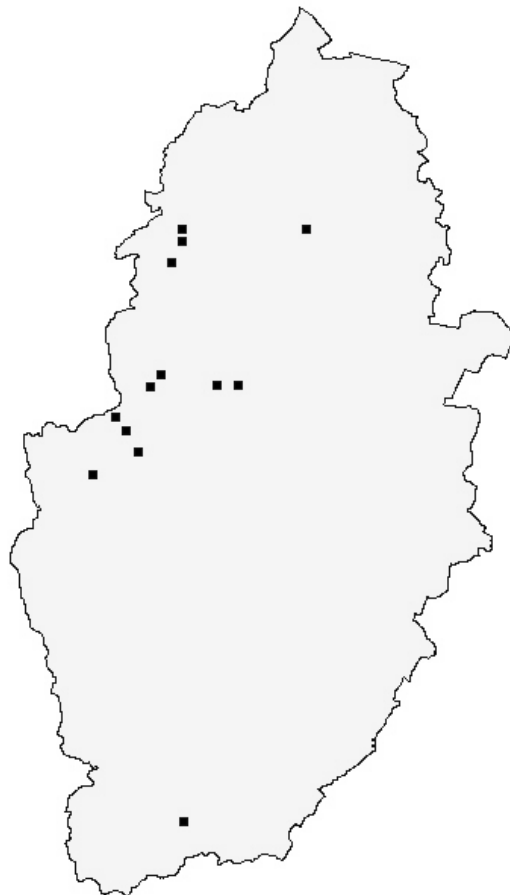
Oligolophus tridens



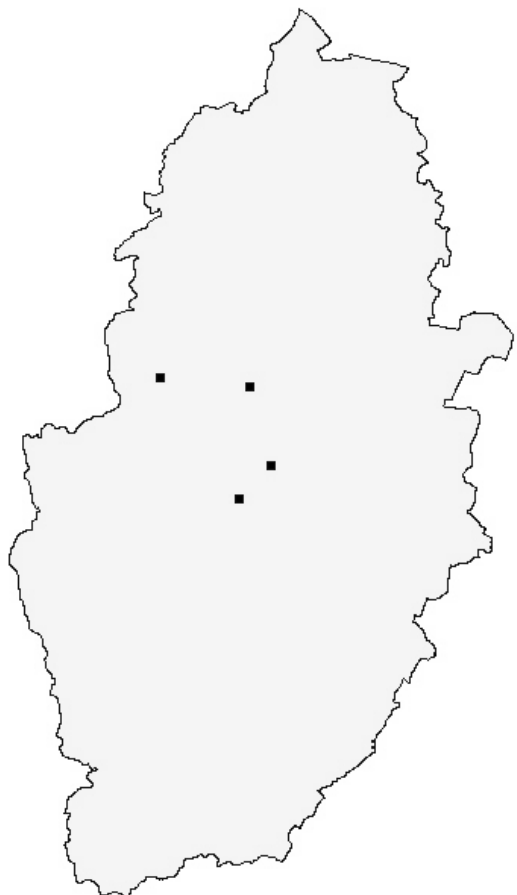
Opilio canestrinii



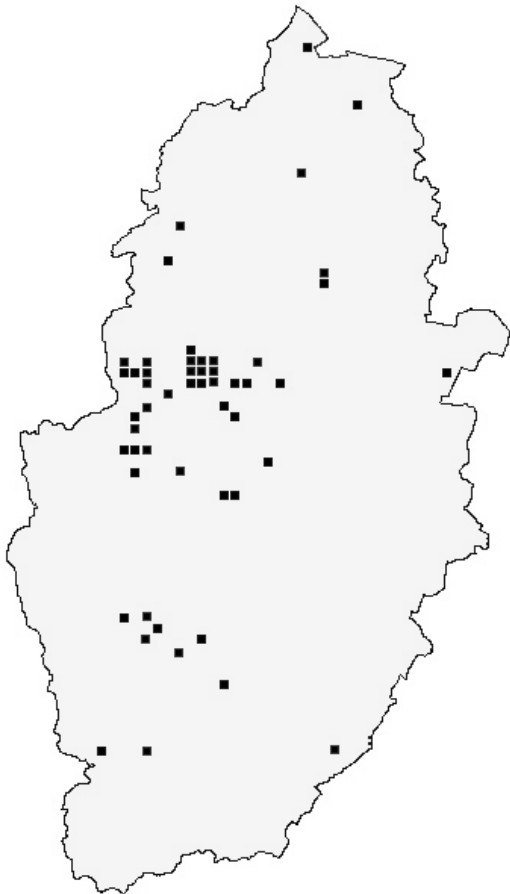
Opilio parietinus



Opilio saxatilis



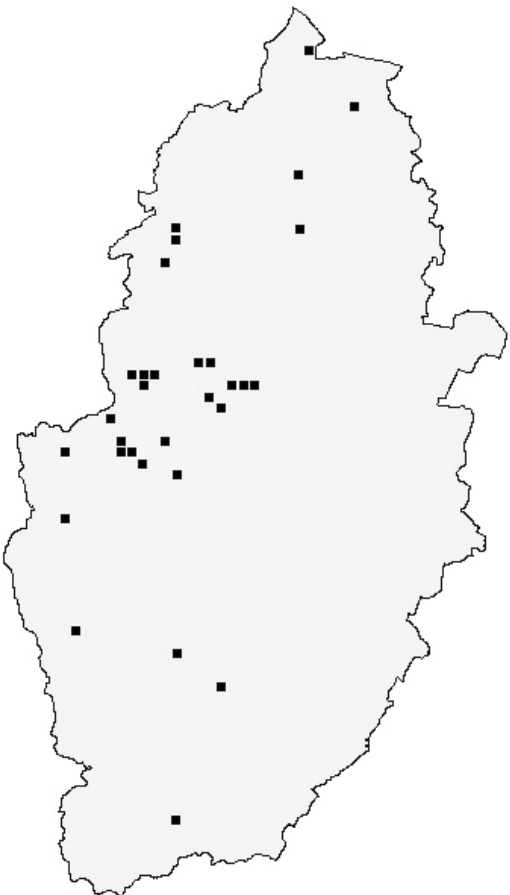
Paroligolophus agrestis



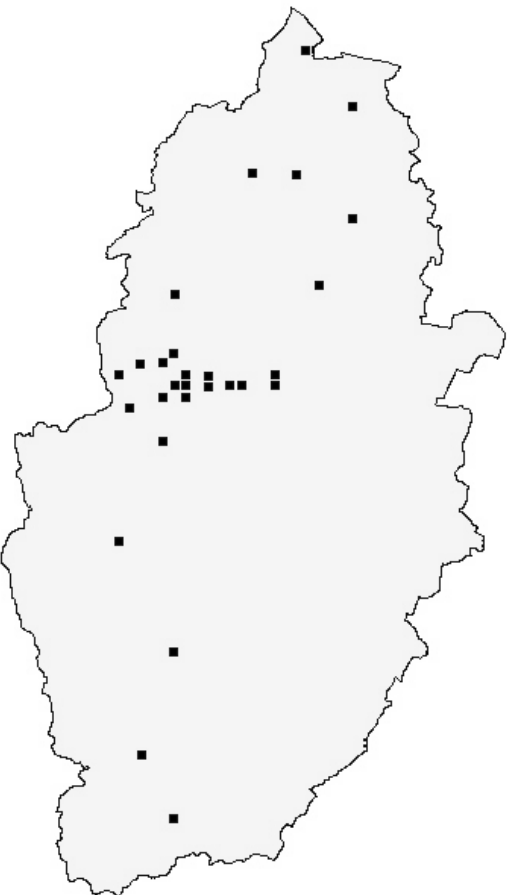
Paroligolophus meadii



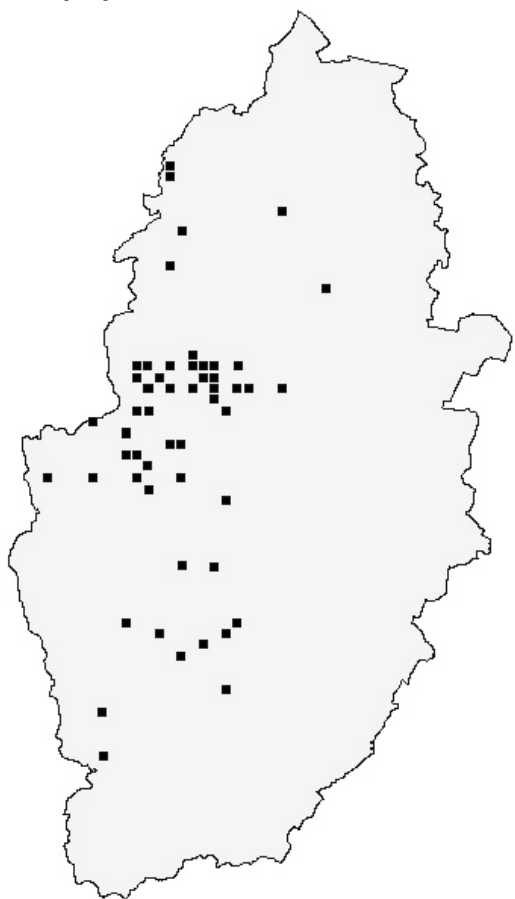
Phalangium opilio



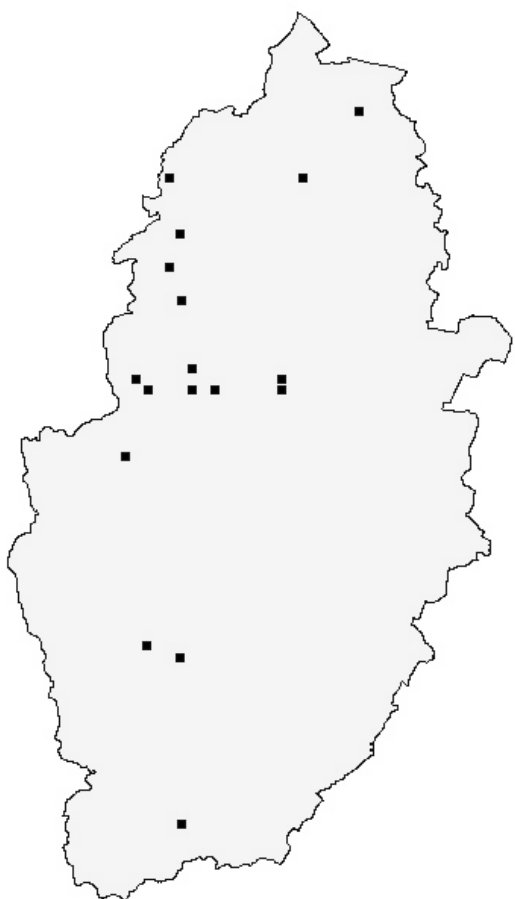
Platybunus triangularis



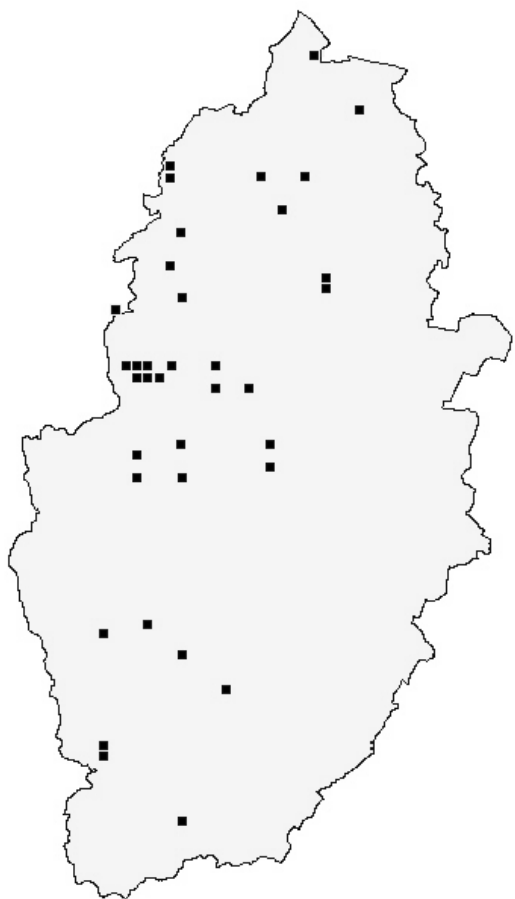
Dicranopalpus ramosus



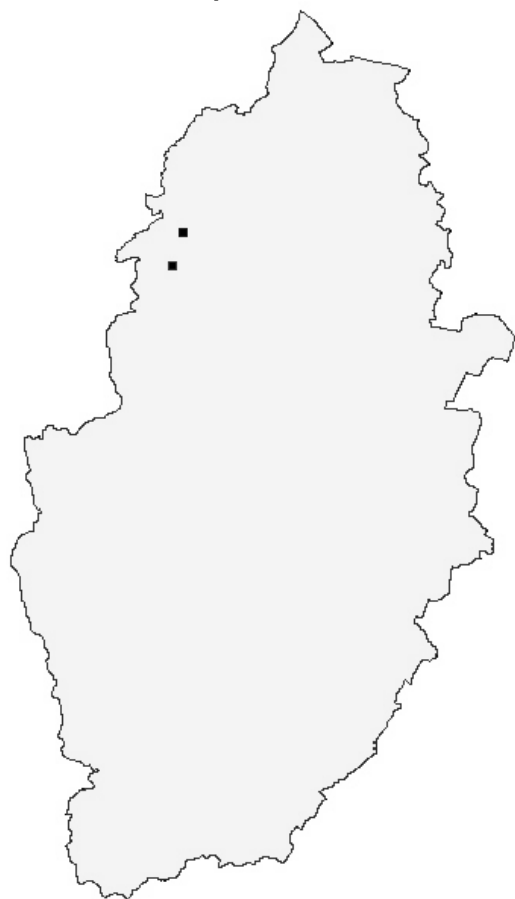
Leiobunum blackwalli



Leiobunum rotundum



Leiobunum sp. A



Nelima gothica



Species photographs



Mitostoma chrysomelas



Nemastoma bimaculatum



Lophopilio palpalis



Megabunus diadema



Mitopus morio



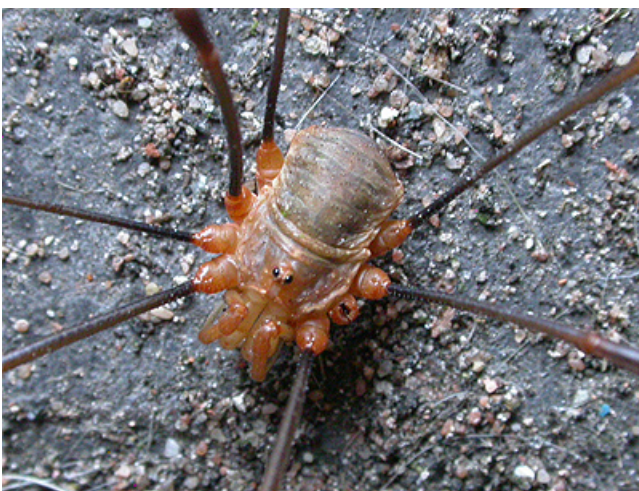
Odiellus spinosus



Oligolophus hanseni



Oligolophus tridens



Opilio canestrinii (male shown left and female right)



Opilio parietinus



Opilio saxatilis



Paroligolophus agrestis



Phalangium opilio (male shown left and female right)



Platybunus triangularis



Dicranopalpus ramosus



Leiorbunum blackwalli (male shown left and female right)



Leiorbunum rotundum (male shown left and female right)



Leiorbunum sp. A (immature male shown left and female right)



Nelima gothica

Calendar of Harvestman activity in Nottinghamshire (VC56)

	Length	Recorded as adult	VC56 status
<i>Mitostoma chrysomelas</i>	2.5 mm	All year	Rare
<i>Nemastoma bimaculatum</i>	3.0 mm	All year	Common
<i>Lacinius ephippiatus</i>	5.5 mm	Spring and Summer	Uncommon/rare
<i>Lophopilio palpalis</i>	5.0 mm	Summer and early Winter	Uncommon
<i>Megabunus diadema</i>	5.0 mm	All year	Uncommon
<i>Mitopus morio</i>	8.5 mm	Summer and Autumn	Common
<i>Odiellus spinosus</i>	11.0 mm	Late Summer and Autumn	Uncommon
<i>Oligolophus hanseni</i>	5.0 mm	Late Summer to Winter	Uncommon
<i>Oligolophus tridens</i>	5.5 mm	Summer and Autumn	Common
<i>Opilio canestrinii</i>	9.0 mm	Summer to Winter	Common
<i>Opilio parietinus</i>	9.0 mm	Summer and Autumn	Common
<i>Opilio saxatilis</i>	6.0 mm	Summer and Autumn	Uncommon/rare
<i>Paroligolophus agrestis</i>	5.0 mm	Summer to Winter	Common
<i>Paroligolophus meadii</i>	4.0 mm	Summer and Autumn	Rare
<i>Phalangium opilio</i>	9.0 mm	Spring to Autumn	Common
<i>Platybunus triangularis</i>	7.0 mm	Spring and early Summer	Common
<i>Dicranopalpus ramosus</i>	6.0 mm	Late Summer to Winter	Common
<i>Leiobunum blackwalli</i>	6.0 mm	Summer to early Winter	Common
<i>Leiobunum rotundum</i>	6.5 mm	Summer and Autumn	Common
<i>Leiobunum</i> sp. A	9.0 mm	Late Summer to early Winter	Rare
<i>Nelima gothica</i>	4.5 mm	Summer and Autumn	Rare