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LEICESTERSHIRE HARVESTMEN

by

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INTRODUCTION

Harvestmen constitute the order Opiliones, of the class Arachnida, which includes mites, scorpions, pseudoscorpions and, of course, spiders. Spiders' bodies are separated into two sections, the cephalothorax and the abdomen, whereas these are completely joined in the harvestmen. Harvestmen have a single pair of eyes, set into a central turret on the top of the cephalothorax, but their eyesight is very poor. Most information is gathered through the second pair of legs (usually the longest) which are used to test the ground ahead when in motion and to find prey.

Harvestmen are carnivorous, feeding on most live soft-bodied invertebrates, including other harvestmen, but carrion is also taken. They are sensitive to dessication and, therefore, live in moist surroundings and are usually active at night. Fertilisation is internal and the females are equipped with long ovipositors with which they lay eggs directly into the soil. The majority of harvestmen species in Britain hatch from eggs in the spring, pass through several instars during late spring and summer, becoming adult in late summer. They then breed and lay their eggs through the autumn, dying out with the onset of winter, the eggs hatching the following year. Species that can be found throughout the year are noted in the following text. These either lay their eggs in June and July, which then hatch and over-winter as sub-adults, or, in a small species such as *Mitostoma chrysomelas*, reproduction can take place at any time of the year depending upon temperature.

LEICESTERSHIRE RECORDS

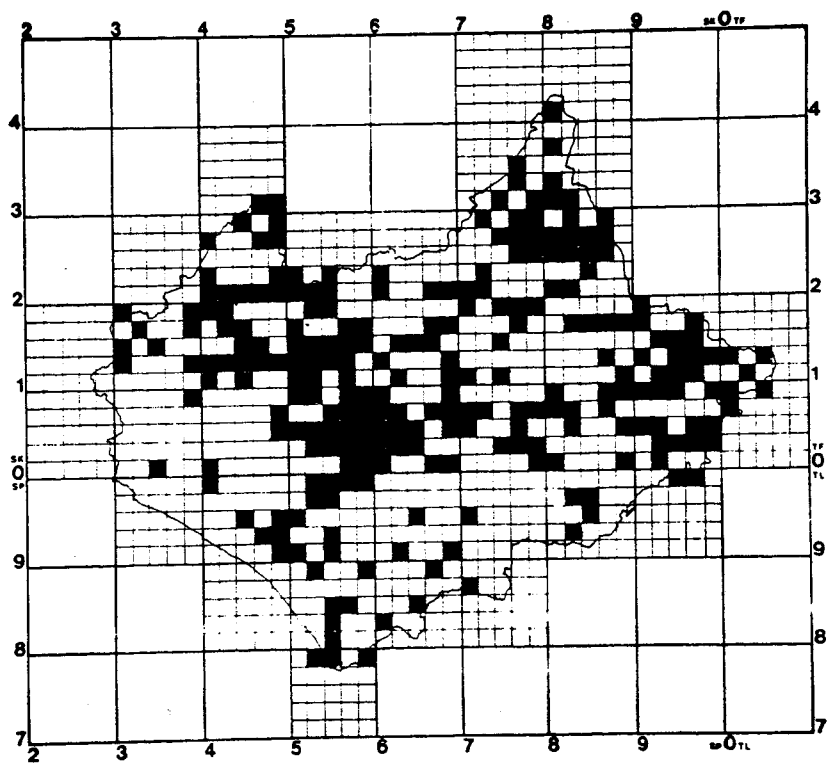
There are 24 species of harvestmen native or naturalised in Britain (excluding hot-house species) of which 20 have been recorded in Leicestershire. There are just under 1,500 records on computer at New Walk Museum (Leicester), these mainly coming from my own on-going surveys since 1990 and AJ Rundle's (1960-1990) reports which are stored at the New Walk Museum. There are also annual records for the 1980s from Jenny Owen's garden where she has just completed a ten year pitfall trapping survey, during which ten harvestmen species were recorded (Owen, 1991). The

Belvoir Coalfield Survey of 1978, edited by Ian Evans, included a chapter on harvestmen by Jan Dawson during which several previously unrecorded species were found (Dawson, 1978). John Crocker's Leicestershire harvestmen report (Crocker, 1965) listed 14 species (including new county records) and draws upon previous surveys such as the national survey carried out by Bristowe (1949).

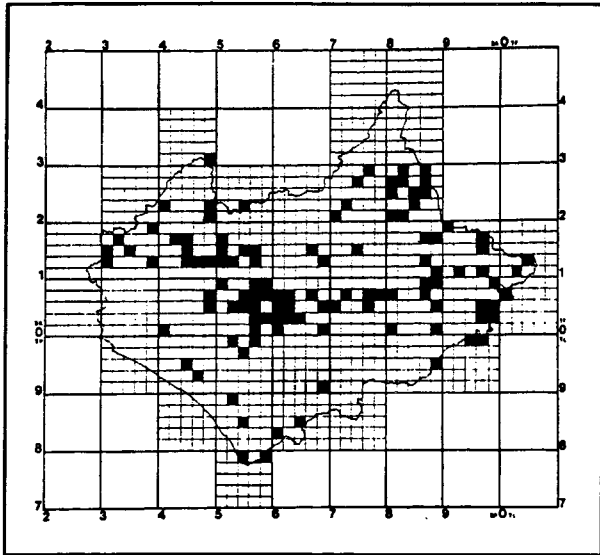
Survey work is set to continue with the under-recorded parts of the county being targeted. If anyone is willing to collect harvestmen, their records will be very welcome.

Figure 1 indicates areas of the county where there are records of harvestmen. These are mapped on a tetrad basis (2x2km square).

Figure 1. Harvestmen records in Leicestershire up to January 1994

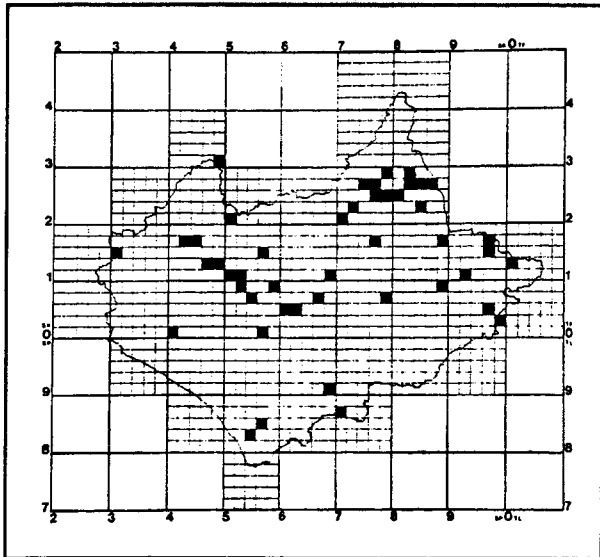


SYSTEMATIC LISTING



NEMASTOMA BIMACULATUM
(Fabricius, 1775)

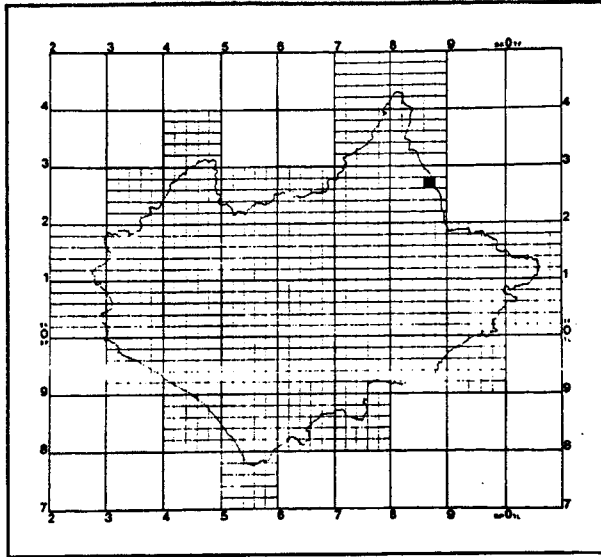
This common species is easily identified in the field (adults being black with two silvery-white patches just behind the eyes) and can be found under logs and stones throughout the year. Crocker (1965) found it to be very common and widespread in the ground layer of most suitable habitats.



MITOSTOMA CHRYSOMELAS
(Hermann, 1804)

This small harvestman is often overlooked or mistaken for juveniles of larger species but it has a distinctive way in which it holds its pedipalps (in a triangular pose). This gregarious species can be found throughout the year amongst long grass, leaf litter and under logs in damp situations. In the past this species has been overlooked as it was not mentioned by Crocker (1965) and at that time was probably mistaken for immature *Nemastoma*

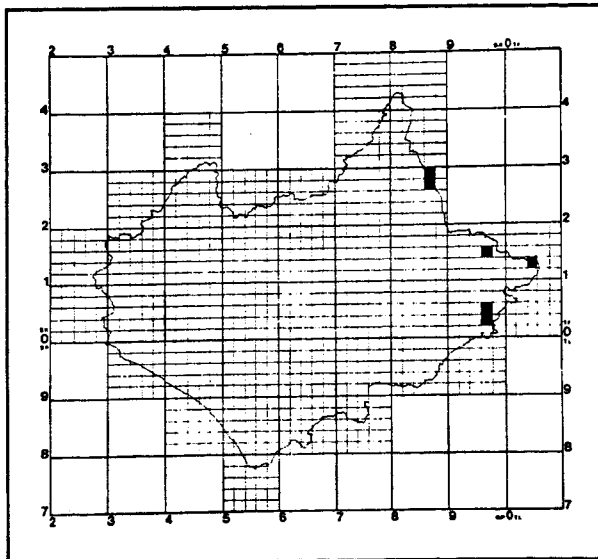
bimaculatum. It was first recorded for the county in the Belvoir study (Dawson, 1978).



ANELASMOCEPHALUS CAMBRIDGEI
(Westwood, 1874)

The first county record for this small species was of six individuals collected in pitfall traps from Copper's Plantation (Dawson, 1978). In 1992 this species was refound at the adjacent King Lud's Entrenchments and was also recorded from The Drift, again in pitfall traps. Since this species feeds mainly on snails and needs free draining soils, the distribution in

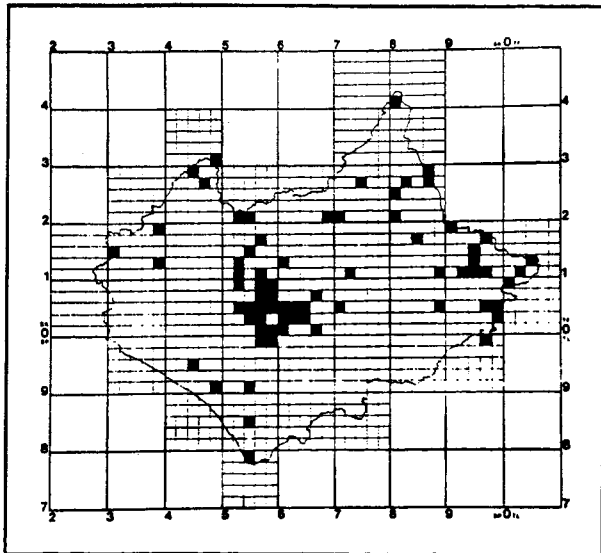
Leicestershire is likely to be confined to areas of limestone in the north-east of the county. Here the snail fauna is at its most diverse and abundant. This harvestman is often overlooked because it lives beneath embedded stones and amongst leaf litter (covered with particles of soil) and, when disturbed, feigns death for many seconds. It is no surprise that it has remained so elusive. This species can be found throughout the year with individuals living for up to three years.



HOMALENOTUS QUADRIDENTATUS
(Cuvier, 1795)

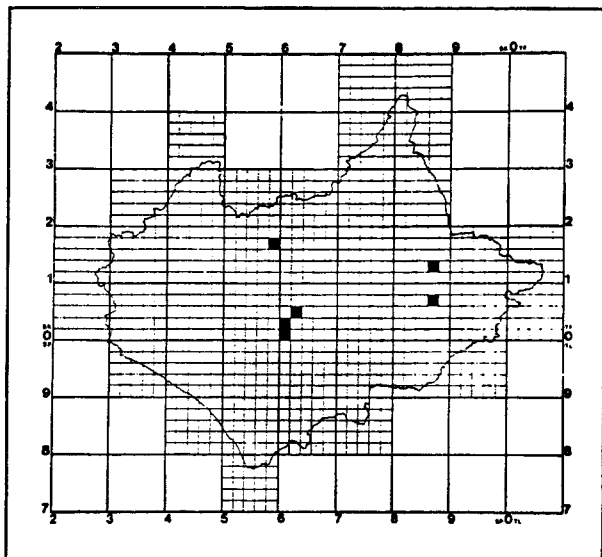
This is another species confined to the east of the county where it can be found in open woods and amongst calcareous grassland. It is a ground living species which can be found throughout the year under logs and stones or amongst grass tussocks. It has a characteristic shape with a pointed snout and four large tubercles on the posterior margin of its abdomen. It was first recorded for the county in the Belvoir study (Dawson,

1978) with 37 specimens collected from Cooper's Plantation in pitfall traps. There are only a further five known sites in the county: Ketton Quarry, Clipsham New Quarry, Essendine Sidings, The Drift and North Luffenham Quarry.



OLIGOLOPHUS TRIDENS
(CL Koch, 1836)

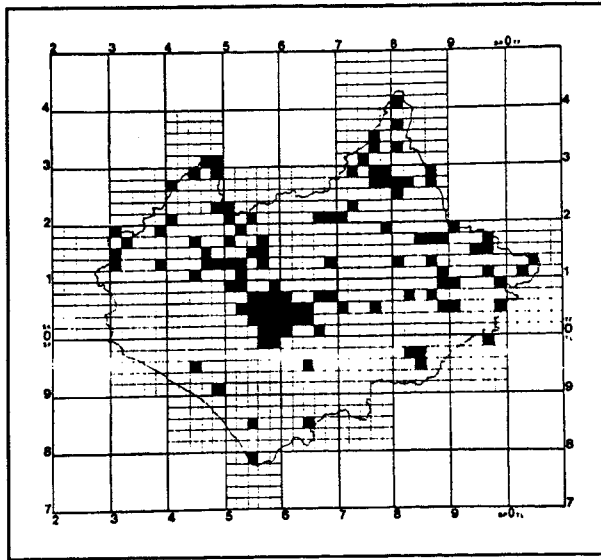
This common and widespread harvestman can be found in the ground layer of most habitats around the county. Crocker (1965) found it to be common in the 1960s and it was also the most numerous harvestman collected in the Belvoir study (Dawson, 1978). Surprisingly, it was infrequently recorded in Jenny Owen's garden during her pitfall trapping decade (Owen, 1991).



OLIGOLOPHUS HANSENI
(Kraepelin, 1896)

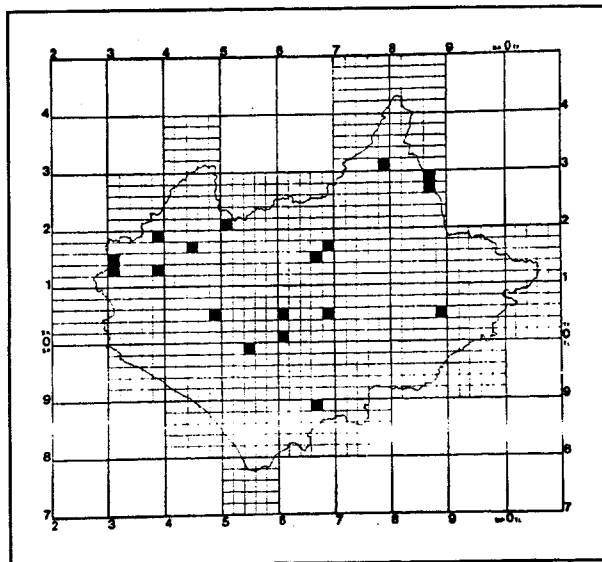
This apparently rare species has a preference for pine trees but not plantations. The first Leicestershire records came from beneath willows, adjacent to a wet roadside ditch, between Barrow-on-Soar and Mountsorrel on 28.vi.61 (Crocker, 1965). Further specimens were collected from a wall in Eggleton village in 1983 and Ashwell churchyard in 1986 (Rundle, 1960-1989). Recently I have recorded it from the dismantled railway embankments

adjacent to Humberstone Park and two gardens in Knighton, Leicester. One of these latter records was from my bedroom window sill, indicating that this species is probably under-recorded. I collected a further specimen from a mature apple tree in the garden the following evening by torchlight.



PAROLIGOLOPHUS AGRESTIS
(Meade, 1855)

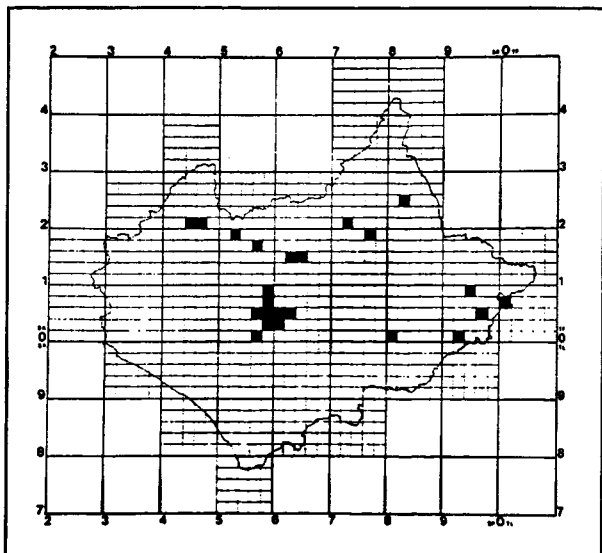
This is an extremely common species currently found throughout the county in nearly all types of habitats. Crocker (1965) found it much the same in the early 1960s. The female has a distinctively notched genital plate but in the male the notch is reduced or even obscure in some individuals. Although this species hatches in the spring and usually dies with the onset of winter, individual specimens have been known to survive into the following April.



LACINIUS EPHIPIATUS
(CL Koch, 1835)

Recorded for the county by Bristowe (1949). This species was also mentioned as being present in the county by Sankey & Savory (1974), probably picking up Bristowe's record. Rundle recorded it at Laughton Spinney in 1981 (Rundle, 1960-1989) and recently I have found it at a number of sites across the county including woodland, marsh, overgrown churchyards and a nature area in a city park. This species hatches and matures relatively early

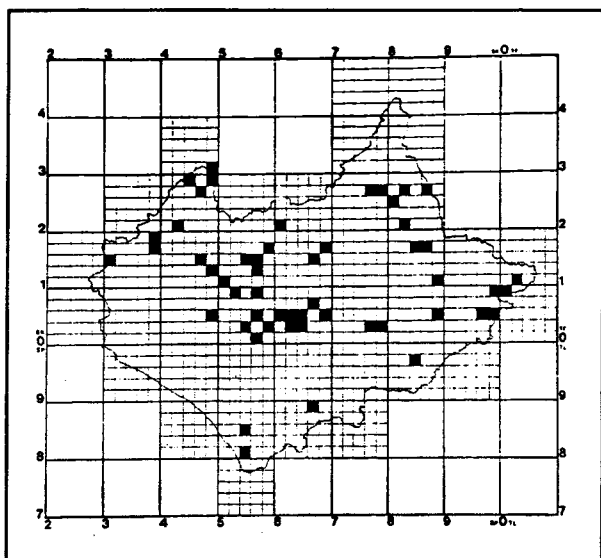
compared to other species of harvestmen and may be adult by May in good years. Although this species is usually found singly, it does have a very wide national distribution.



ODIELLUS SPINOSUS
(Bosc, 1792)

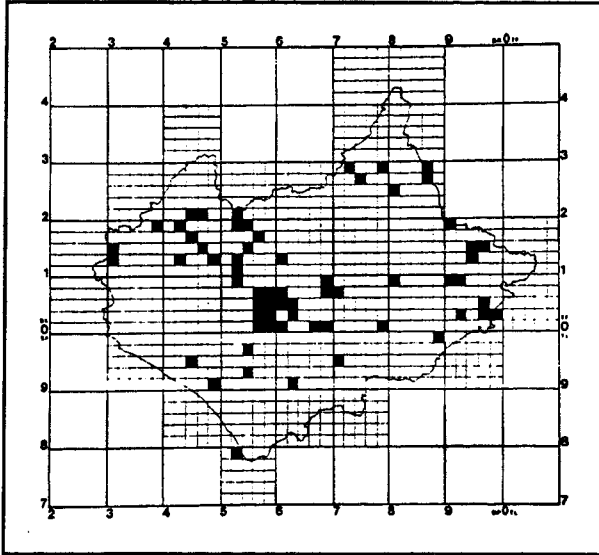
Leicestershire is on the edge of this species' range. There are very few records north west of a line from the River Severn to the mouth of the Humber. This species was recorded for the county by Savory (1948), Bristowe (1949) and from a garden in Loughborough in 1961 by Crocker (1965). This species seems to be specifically associated with man-made habitats with very

large numbers being caught annually during Jenny Owen's ten year pitfall trapping survey (Owen, 1991). Both Rundle and I have found it to be quite common around the city with odd records from churchyards and other synanthropic sites in the north and east of the county.



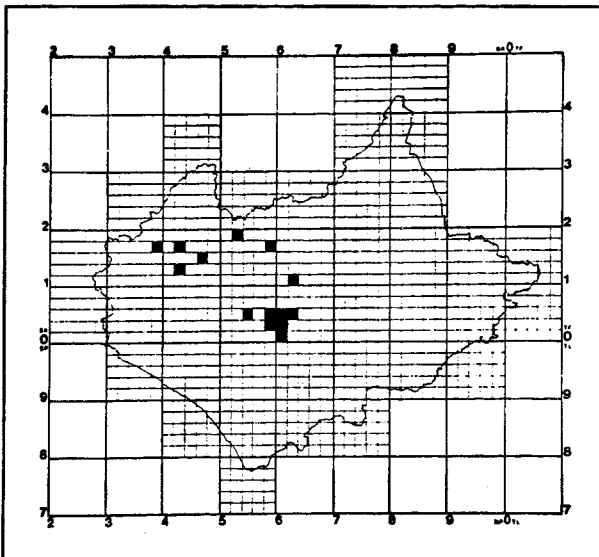
MITOPUS MORIO
(Fabricius, 1799)

A frequent and widespread harvestman found throughout the county in a wide range of habitats. This is a highly variable species both in size and colouration. However, the lack of a trident and the presence of a ventral spur on the basal segment of its chelicera help to solve any confusion with its determination.



PHALANGIUM OPILIO
(Linnaeus, 1758)

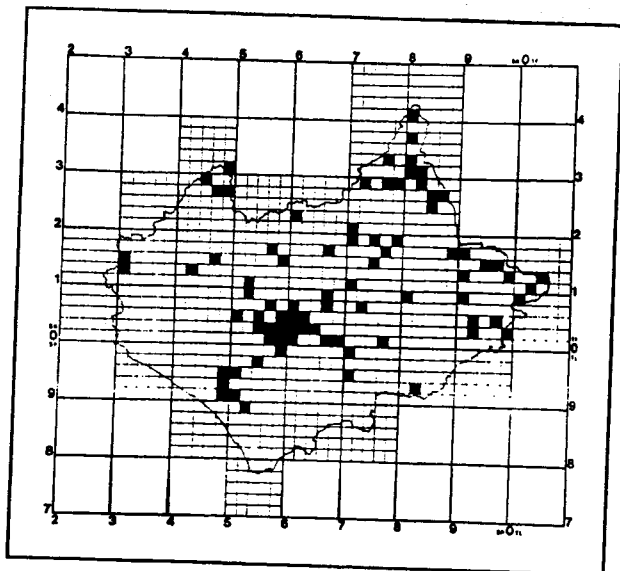
A common species found in huge numbers in grassland but also recorded from open woodland and gardens. In 1993 it was the only harvestman species caught in a pitfall trapping survey of Loughborough Big Meadows where it occurred in abundance. Both sexes of this large harvestman have two black-tipped tubercles between the front edge of the body and the chelicera. The males have conspicuous horns on the first joints of the chelicerae which vary in size between individuals.



OPILIO PARIETINUS
(Degeer, 1778)

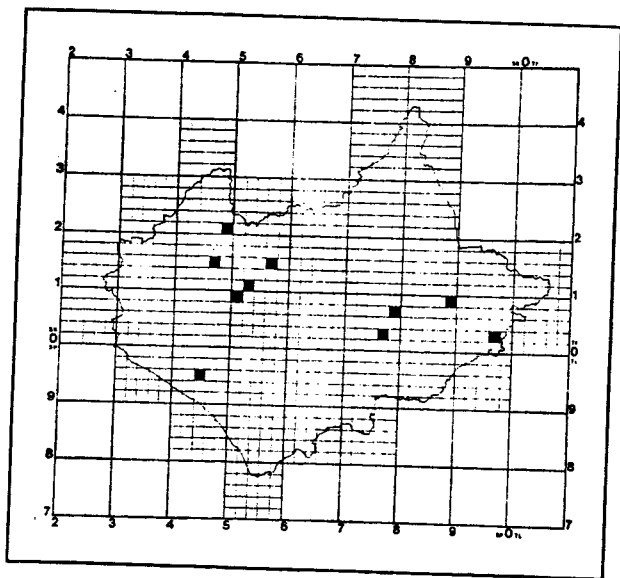
Most recent records are from built up areas in the city with one record from a churchyard in Syston. This species has mainly been recorded from gardens and churchyards with a couple of records from a city park and an area of urban waste ground. I believed this species to be scarce in Leicestershire until Jo Gilbertson collected five harvestmen from her pocket-sized garden in Highfields, all of which turned out to be

Opilio parietinus. With these records in mind, I visited a friend who also lives in a terraced house just off the Uppingham Road and surveyed the garden by torchlight. I found the species to be common in association with paths and brick walls. Crocker (1965) first reported this species for the county in the early 1960s from six locations within three 10km squares in the north west of the county, from rural and urban areas.



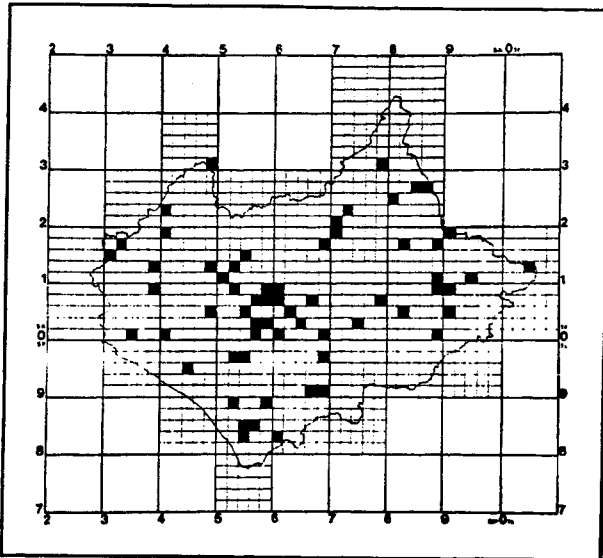
OPILIO SAXATILIS
(CL Koch, 1839)

A common ground-living species first recorded for the county in the early 1960s from Bradgate Park and Charnwood Lodge (Crocker, 1965). Both species of *Opilio* have a dark row of spots on the basal segment (coxa) of their legs with *O saxatilis* having a line of white spots down its back. This species can be found under logs and amongst grass tussocks in quite dry habitats including open scrub, heath and gardens. Recently, whilst looking for woodlice in churchyards I have also found *O saxatilis*, these accounting for half of the records shown on the map.



MEGABUNUS DIADEMA
(Fabricius, 1779)

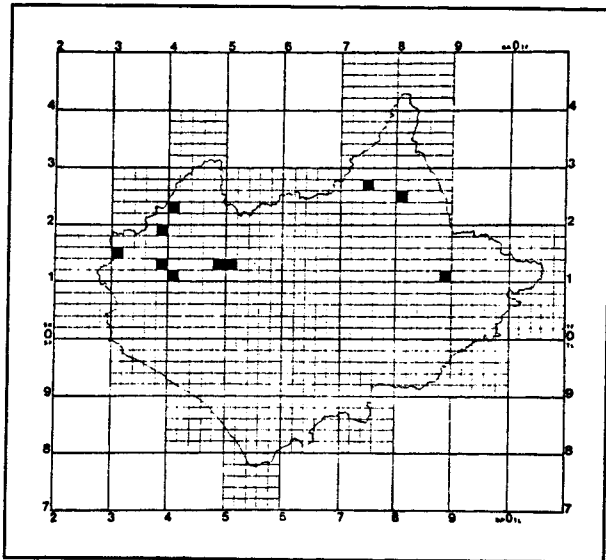
A beautiful harvestman with exceptionally prominent spines on its ocularium, almost a crown of thorns. Crocker (1965) found it at Loddington Reddish and Charnwood Lodge during the early 1960s. In Britain it has a westerly distribution being rare in East Anglia and the Midlands where it seems to be confined to ancient woodland. The sparse records seem to bear this out: Oakley Wood (1967), Bradgate park (1970), Buddon Wood (1976), Skeffington Wood (1979), Groby Wood (1988), Clipsham Wood (1989), Owston Wood (1991) and Burbage Wood (1993), but there is also a record from North Luffenham Quarry (1992). This species can be found throughout the year under logs and amongst dense leaf litter.



RILAENA TRIANGULARIS
(Herbst, 1799)

First recorded for the county from Skeffington Wood by Crocker in the early 1960s (Crocker, 1965). It can be found throughout the year, overwintering in the juvenile stage and maturing in May or June. Its appearance when young is highly characteristic since its ocellarium seems to be the same size in juveniles as it is in adults with its first instar having the eyes almost the same size as its body. The pedipalps also have a prominent

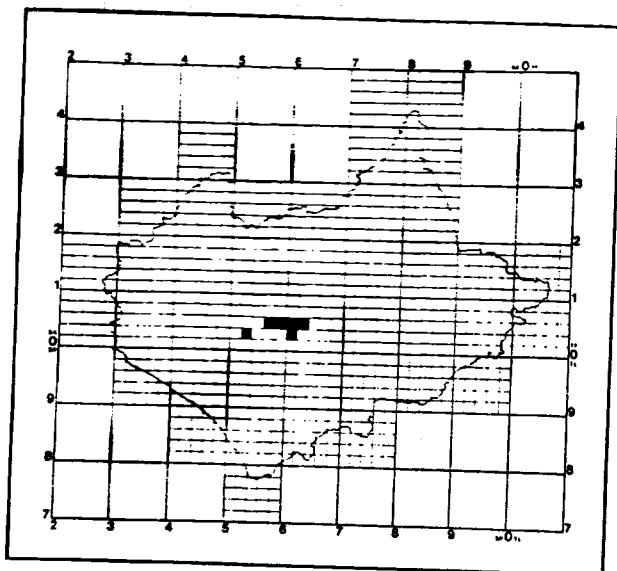
thumb (apophysis) on the inside of the patella. This species is associated with woodland but can be found in other habitats which provide good cover, such as gardens. It is reasonably common and widely distributed around the county.



LOPHOPILIO PALPINALIS
(Herbst, 1799)

A striking species with the adults having conspicuous tubercles on their pedipalps resembling bunches of sausages. It was first recorded for the county in 1960 from an orchard in Ibstock. It is usually associated with woodland and old hedgerows and during the Belvoir study six specimens were taken in pitfall material from Harby Hills Wood (Dawson, 1978). Further records come from: Ulverscroft, Breedon Cloud, Burley-on-the-Hill,

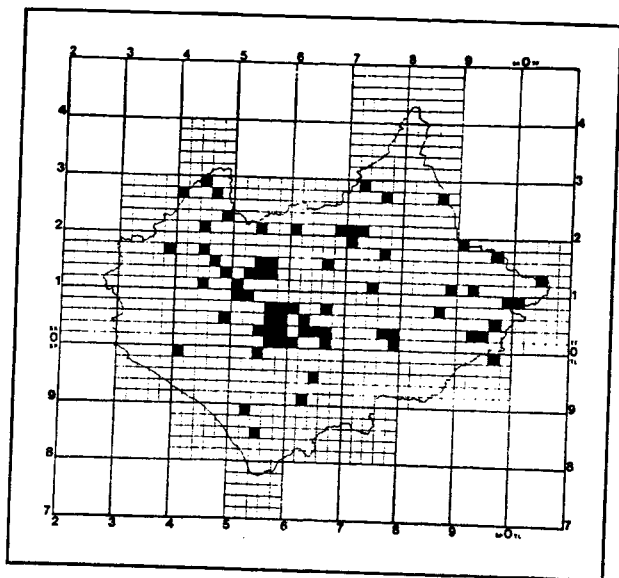
Benscliffe Wood, Stonesby Quarry and from pitfall material from Normanton-le-Heath, New Field Colliery and Lount Meadows.



DICRANOPALPUS RAMOSUS
(Simon, 1909)

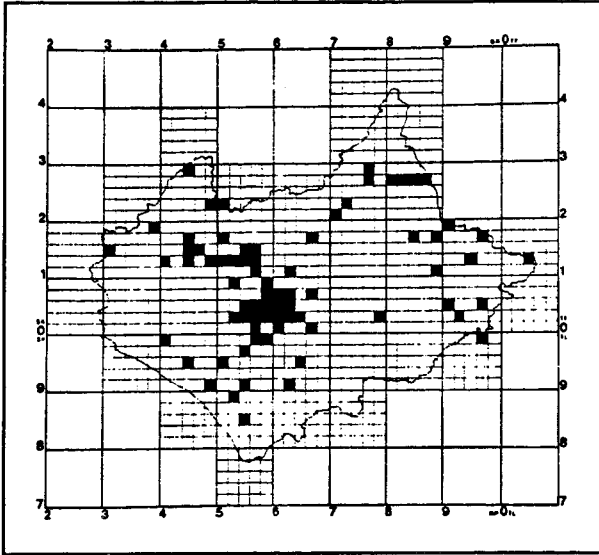
This species was first discovered in Britain at Bournemouth in 1957 but has spread rapidly since then. It was probably accidentally introduced from Europe as eggs, laid in the soil of containerised trees and shrubs, to most southern centres of population over the following three decades. In the 1960s, along the south coast, this species seemed to show a marked preference for privet hedges and evergreen shrubs. The

first Leicestershire records came from Jenny Owen's garden in 1988 where this species was collected by hand from shrubs (Owen, 1991). During 1991 I asked members of the Natural History Section of the Leicester Literary & Philosophical Society to collect harvestmen for me from their gardens. Out of the five specimens that were handed to me, two were *D ramosus*. The only other records for the county come from Abbey Park (1990), Weston Park (1992) and two other gardens in east Leicester (both 1992).



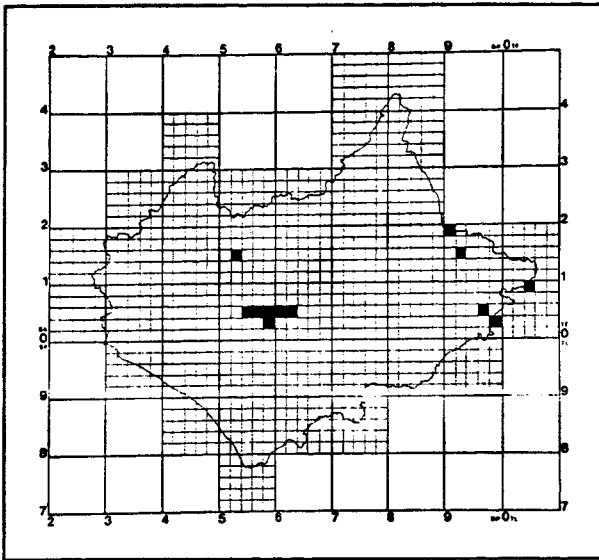
LEIOBUNUM ROTUNDUM
(Latreille, 1798)

This is a common and widely distributed species found in most habitats from woodland to gardens. Both species of *Leiobunum* have exceptionally long legs and are best separated by the coloration of the ocularium with *L rotundum* having eyes surrounded by a dark ring with a whitish medium band, whereas in *L blackwalli* the ocularium colouration is reversed.



LEIONUNUM BLACKWALLI
(Meade, 1861)

This is also a widespread and common species found in similar numbers and habitats to *L rotundum*. It has been recorded throughout the city in gardens and churchyards. It was first recorded for the county in the early 1960s from Charnwood Lodge (Crocker, 1965) before which it was probably overlooked or confused with the previous species.



NELIMA GOTHICA
(Lohmander, 1945)

This harvestman was first recorded in Leicestershire from Jenny Owen's garden when four specimens were caught in pitfall traps during 1981 (Owen, 1991). The other records were made by Rundle (1987-1990) and myself when we found it widely distributed around the city and county in exposed habitats. These included quarries, dismantled railways, city parks and churchyards. Nationally this species has a very wide

distribution having been recorded from coastal habitats, open grassland and from altitudes up to 300 metres. It has probably been overlooked or mistaken for juveniles of the *Leiobunum* species but a good field character is its pale trochanters, whereas the *Leiobunum* species have dark ones.

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