

LEICESTERSHIRE ENTOMOLOGICAL SOCIETY

4

February 1990

MAJOR PROJECT FOR SOCIETY!

Plans have been afoot for several years to publish an atlas of the county's lepidoptera. In Newsletter 2 we announced that the Leicestershire Museum Service was to produce a review of the county's lepidoptera for the 1970s authored by Ray Barnett and the late Don Hall-Smith.

The start of the 1990s has prompted the Society to consider the production of a review of our lepidoptera which will not only update the 1970s draft but also include historical, as well as 1980s, data.

Biographies & computers

Also to be included are biographies of Leicestershire lepidopterists who have made significant contributions to our understanding of the distribution of butterflies and moths in the county. As part of the publication we shall be producing an updated check-list of the lepidoptera of the county.

All this has come about as the records of lepidoptera, as of the 1st January 1990, will be computerised. It is only right that we now have a benchmark against which future insect recording can be measured and, without a doubt, such a publication will be of

significant importance to the conservation of sites valuable for insects.

Your help needed!

Leicestershire is relatively poorly off for records of lepidoptera when compared to other counties. In particular, historical records are scarce.

We need your help to locate as many records as possible. Do you know of naturalists who may casually record butterflies? If so, then persuade them to let you have copies of their sightings.

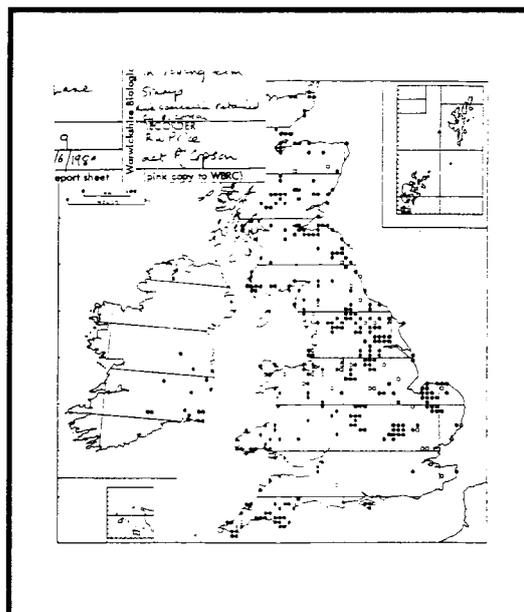
Are you aware of ardent entomologists who prefer to do their own thing and do not report their records to anybody? Contact them and get their records! Any old collections knocking about that we should know of? Are you aware of reports in Society magazines, journals or even newspapers? Let us know!

UNUSUAL MILLIPEDE AT HINCKLEY

Reg Price, an amateur naturalist who has revived an earlier interest in insects and other invertebrates, reports on some unusual findings on the old bridle way/green lane called Barwell Lane in Hinckley.

"On June 20th 1989 I found a striped millipede in a rotting elm stump on Barwell Lane. Pam Copson of the Warwick Museum identified it as *Ommatoiulus sabuosus*. [Apparently this species is relatively uncommon as can be seen from the map]

Other insects I have seen in Barwell Lane during June and July of 1989 include the lesser stag beetle (*Dorcus parallelipedes*) of which many were seen. Several examples of *Anax imperator* (the emperor dragonfly) were seen during July and in August many brown aeshnas



Ommatoiulus sabuosus

(*Aeshna grandis*) were on the wing. Two other insects identified were the slender-bodied digger wasp (*Crabro cribarios*) and the scorpion fly (*Panorpa communis*)"

Reg Price

COMMITTEE 1990

As no nominations were received at the Society's AGM the existing Committee was returned en bloc for 1990.

Chairman: Ray Morris

Secretary: Derek Lott

Treasurer: Jane McPhail

Programmes:

Indoor: Roger Key

Outdoor: John Mousley

Editor: Ray Morris

CORRECTION

In Neil Frankum's article on hoverflies in gardens (Occasional Publications Series Number 3, 1988) *Chalcosyrphus nemorum* should read *Eumerus spp.*

COPY WANTED!

The Newsletter welcomes your news and views. Send your contributions to Ray Morris at 142 Hinckley Road, Barwell LE9 8DN preferably as typed copy. All illustrations should be done in black ink for ease of reproduction.

COPY DATE: 1st July 1990

MORE ON MELANIC PEPPERED MOTHS

In his article on the peppered moth, *Biston betularia*, in Newsletter 3, Ray Morris asked some questions about the genetics and evolution of industrial melanism. The answers are available through the work of H.B.D. Kettlewell and others.

The first black form of *B. betularia* was caught in Manchester in 1848. The frequency of melanics rapidly increased in industrial areas until, by the turn of the century, in England and Wales 99% of populations in and downwind of industrial areas was black.

Genetic cause

Melanism is caused by a gene, known as *carbonaria*, which is dominant. Consequently, not only is a moth that carries two *carbonaria* genes (the homozygote) black but so is a heterozygote which carries one gene of the typical type and one of *carbonaria*. Typical peppered moths carry no *carbonaria* genes. A mating between two heterozygotes (which are black but which produce equal proportions of eggs or sperm each carrying either a *carbonaria* or a typical gene) produces black moths and typical moths in the ratio of 3:1; one third of the black offspring will be homozygotes and two thirds will be heterozygotes.

Melanism spread so rapidly because peppered moths rest by day on tree trunks, the typical form being well-camouflaged on a lichen-covered tree. Lichens are extremely sensitive to atmospheric pollution and disappeared in the 19th century from blackened tree trunks in and downwind of industrial areas. As a

result, typical peppered moths are conspicuous on black tree trunks and so fall prey to birds. In contrast, melanic moths are at an enormous advantage being camouflaged and so survive to breed.

Not environmental

Melanism is not caused by environmental conditions, being initially the result of a fortuitous mutation, but its spread is a consequence of environmental conditions. *Carbonaria* is not the only gene for melanism in *B. betularia*, there also being a less common *insularia* gene which is also dominant.

A further complication is that larvae of at least a proportion of black peppered moths is resistant to chemical pollution of the leaves that they eat and so survive better in industrial areas.

Melanism declining

Industrial melanism is the best instance known of natural selection producing change in a population. It now seems that the process may be in reverse. Effective smoke control legislation is resulting in the re-establishment of lichens on tree trunks in towns and cities, and the area of high melanic frequency in *B. betularia* has contracted to the north east of England.

Jenny Owen

COLEOPTERA 1989

Beetles found on Society field meetings

Entomologists are like farmers - always moaning about the weather! It is either too hot, too cold, too windy or too anything else that you can think of! This is because insects, in general, are not tolerant of a wide range of temperatures and humidities. In 1989 it was, on the whole, too dry for many beetles, but occasionally it was too wet! This was reflected in our experiences during field meetings last summer.

Saddington reservoir
(SP 6690, 7.v.89)

This site has enjoyed a reputation for being one of the premier sites for beetles in Leicestershire since the last century. The earliest record that I have seen is of *Chlaenius vestitus* published by Francis Plant in 1857.

The Reverend A. Matthews lived very nearby at Gumley from 1853 until 1897. He collected an amazing array of beetles but was somewhat imprecise in the localities that he gave. It may well be that some of his records came from the reservoir but as far as I know he never referred to it by name in any surviving literature.

Even so, the activities of the Entomological Section of the Literary and Philosophical Society of the 1890s and of twentieth century collectors, such as D. Tozer and C.W. Henderson, have amassed an outstanding

list of regional rarities.

Our own Society chose to spend its first ever field meeting at Saddington on 7th May 1989. This visit happened to coincide with the aftermath of one of the few periods of torrential rain in a very dry year. Consequently, the conditions were more suitable for some of the members to show off their ownership of waders than for collecting beetles! Nevertheless 33 species were recorded and although no new rarities were found several old ones were (Table 1).

Only the two *Bembidion* species have been found elsewhere in the county in modern times.

Misterton marsh
(SP555851, 7.v.89)

In contrast to Saddington reservoir, the marsh visited at Misterton on the same day was almost bone dry! This site has been damaged by drainage and coniferous

Table 1. Beetles at Saddington reservoir 7.v.89

Carabidae:	<i>Bembidion doris</i>
	<i>Bembidion fumigatum</i>
	<i>Pterostichus anthracinus</i>
Hydrophilidae:	<i>Helophorus nanus</i>
Staphylinidae:	<i>Lathrobium impressum</i>
	<i>Dochmonota clancula</i>

Coleoptera 1989 continued

plantation. The remaining open areas will eventually turn into dry scrub and become unsuitable for the wetland beetles. Even now only 14 species could be found in the marsh. The most interesting find was the rove beetle *Deubelia picina*. The only previous Leicestershire record of this species was by Matthews.

Charnwood Lodge nature reserve in this county. Nearby was a recently excavated hole two metres long which received water drained from an adjacent field. This unpromising locality yielded 17 species of water beetles! Perhaps some of them, such as *Hydroporus gyllenhali* and *H. pubescens* were refugees

Table 2. Beetles at Acresford sandpit 2.vii.89

Carabidae:	<i>Notiophilus substriatus</i>
	<i>Olisthopus rotundatus</i>
	<i>Amara lunicollis</i>
	<i>Harpalus rubripes</i>
Staphylinidae:	<i>Xantholinus jarrigei</i>
	<i>Tachyporus atriceps</i>

Acresford sandpit
(SK3013, 2.vii.89)

I had been looking forward to this visit ever since John Mousley brought me a subterranean rove beetle, *Bledius opacus*, from the site earlier in the year. However, by July the drought was under way and at Acresford conditions were too dry. Nevertheless, 30 species of beetle were recorded including several faithful disused quarry and waste ground species (Table 2).

Moira
(SK318155, 2.vii.89)

Of chief interest here was a visit to a *Sphagnum* pool which had dried out. For fear of damaging the habitat only limited sampling was carried out and only two water beetles could be found. One of these belonged to the species *Helochares punctatus*, otherwise only known from

from the dried up *Sphagnum* pool.

Hallaton Castle
(SP7896, 3.ix.89)

A visit to a fantastic water beetle site at Great Bowden Pit was defeated by the drought. The next site at Hallaton Castle also previously boasted an impressive water beetle list from the stream. *Limnebius papposus* was added to it.

I spent most of my time in a dung heap 200 metres away where I found 11 species of beetles including the histerids *Peranus bimaculatus* and *Atholus duodecimstriatus* and the clavicorn *Monotoma picipes*. Horse dung in an adjoining field yielded several rove beetles including *Philonthus discoideus* and *P. longicornis*.

continued on page 6....

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MICROMOTH FROM "DOWN-UNDER" SPREADING THROUGH BRITAIN

Epiphyas postvittana is a member of the Tortricidae. It originated in Australia and was first recorded in this country in 1933 when there were several records of specimens bred from larvae imported on New Zealand apples. In 1936 it was recorded as breeding in Cornwall. Since then it has spread through Cornwall and Devon to Kent and Essex as well as the London area.

A single specimen came to light on 18-19.iv.89 in Cardiff. A further eight specimens were recorded from the same source between 10-31.v.89 indicating that the species is breeding locally. In October 1989 the species was recorded in Oxfordshire.

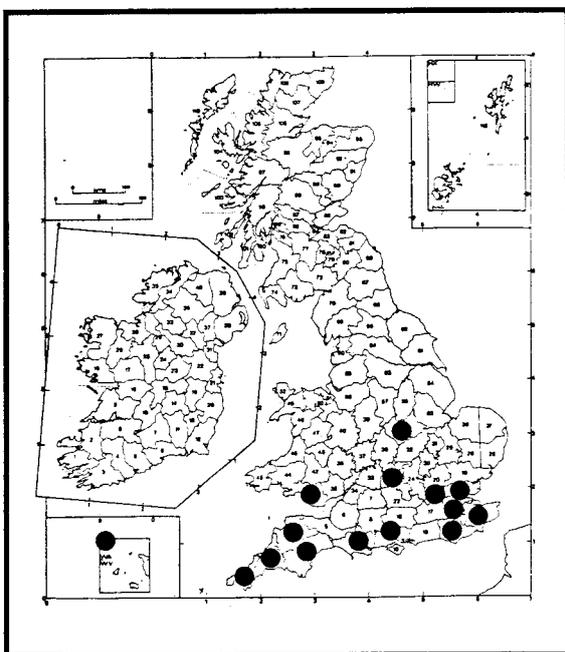
The northernmost specimen recorded so far was caught at light in a Kirby Muxloe garden (SK 521037) in September 1989. It was positively identified by Ray Barnett now Assistant Curator, Natural History at the City Museum, Bristol.

E. postvittana is a pest to apple growers in Australia and New Zealand where it is known as the light-brown apple moth or apple leaf-roller. Fortunately the larvae in Britain are polyphagous. So far 100 different foodplants have been recorded. In some parts of Cornwall the moth is continuously brooded: eggs, larvae, pupae and imagines occurring in any month of the year.

In which county will this micro appear next?

[My thanks go to Ted Hancock, presently preparing volume 5 - Tortricidae - of MGBGI for the map and up to date information and to Ray Barnett for the identification.]

Jane McPhail



Epiphyas postvittana

Coleoptera 1990 contd.

On the way home I visited another dung heap in Hallaton at SP782983 where I found 13 species. Those additional to the first site included the histierid *Acritus nigricornis*, the staphylinid *Oxytelus sculptus* and the clavicorn *Monotoma bicolor*.

Derek Lott

UNSEASONAL MICRO!

Ditula angustiorana made a very unexpected appearance in my kitchen on 4.xii.89. This micro-moth, a member of the Tortricidae, is usually on the wing in June and July. The eggs are laid and the larvae hatch by August. The larvae survive the winter in a woven hibernaculum, wake in the spring to continue feeding and then pupate in June.

Brought into the warm kitchen with some of the apple store in the autumn, the larva's dormant stage appears to have been interrupted by the false impression of spring. Food was plentiful (apples and leaves) so pupation followed and the moth, a beautiful, well-marked male, emerged very early for next year!

Jane McPhail

NEW MEMBERS

Simon Edwards, 50 Grosvenor Crescent, Oadby LE2 5FP

RP Beal, 38 Fairfield Road, Hugglescote LE6 2HG

Ryan Walker, Oak House, Pond Lane, Greetham, Rutland LE15 7NU

Brian Mitchell, 127 Watling Street, Grendon, Near Atherstone, Warks

Trevor Forsythe, 5 Knob Hill, Stretton-on-Dunsmore, Warks CV23 9NN

David Budworth, 121 Wood Lane, Newhall, Burton-on-Trent, Staffs

Ian Viles, 19 Dorothy Avenue, Sandiacre, Notts NG10 5LH

Know of anyone who would be interested in joining the LES? Tell them about us!

GARDEN BUTTERFLY SURVEY

During 1989 the south west group of the Leicestershire and Rutland Trust for Nature Conservation carried out a small scale survey of butterflies seen in members' gardens during the period March to October. The results of this survey are currently being collated and analysed. It is hoped to run the survey again in 1990 but this time extending the involvement of Trust members to the whole of the county.

With the launch of the lepidopteran project by the LES it would seem only right and proper that LES members should be invited to participate in this recording scheme. The survey will have an increased importance in assessing the effects of a long, hot, dry summer in 1989 followed by, as yet a mild winter, on the butterfly population of the county.

If you wish to be involved send a large s.a.e. to Ray Morris, 142, Hinckley Road, Barwell LE9 8DN. The survey period will run from April to October 1990.

NEXT COPY DATE: 1ST JULY 1990

NEW MOTHS AT SHEARSBY

FOUR SPOTTED FOOTMAN GEM!

After 14 years recording moths at Shearsby with the aid of a mercury vapour lamp, new species continue to turn up each year. I think this shows that when conditions are favourable moths will travel considerable distances which adds greatly to the fascination of recording.

There are, of course, many other factors: the loss of elms, the increasing number of conifers, poplars, wild cherries etc which are being planted - all must affect the types of species which appear in any area.

First timers at Shearsby in 1989 included the following.

1957 *Lomographa bimaculata*
(White pinion spotted)

The capture of this species on 23rd May was not entirely unexpected as it had been reported across the county in recent years. South gives its main foodplant as hawthorn but says that it is most frequent in the south where wild cherry flourishes. Certainly on two occasions when I have seen it in the county, cherry trees have been nearby. Perhaps the popularity of flowering cherries in gardens has encouraged its spread northwards.

23/19 *Cosmia pyralina*
(Lunar spotted pinion)

A worn specimen of this moth came to the light trap on July 22nd. I first saw this species near Misterton when the Natural History section of the Literary & Philosophical Society ran a light trap there in July 1982. This too is mainly a southern species, thinning out over the Midlands, and

occurs in woods, gardens etc. The larvae are said to feed on a variety of common trees but the most common tree - ash - is not given.

Idaea seriata 1907
(Small dusty wave)

This was found on June 28th in the centre of a privet hedge I was clipping. It was a very nice, fresh specimen which I had difficulty in recognising at first but on matching it with those in the Museum reference collection it was clearly *seriata*. It is said to feed on low ground plants with a preference for withered dandelion leaves!

Cabera exanthemata 1912
(Common wave)

This species was also recorded for the first time on July 14th. Why this particular species took so long to be recorded at Shearsby I do not know. It has been fairly commonly seen elsewhere as its name implies. Perhaps the lack of woodland in the district has a bearing on this as its foodplants are trees which grow in damp woodland.

Cybosia mesomella 2051
(Four-spotted footman)

This was undoubtedly the most outstanding first appearance of 1989! This easily recognised moth actually landed on me as I

Shearsby moths contd.

was standing by the MVL on July 3rd. On checking the records at the Museum, we found that it had been recorded from Gumley in the Victoria County History. This was published in 1907 and there have been no records from the county since.

The information in MBGBI is that it occurs on heaths, moorland and open woodland in southern England and spasmodically up to into Scotland. The larva feeds on lichens growing on heather, trees and bushes. The lack of this type of habitat in this area makes it most unlikely that it could become established here.

Harold Godsmark

KEN GREENWOOD

Members will be saddened to hear of the sudden death of Dr Ken Greenwood, a founder member of the Society. Even though he lived just over the border in Warwickshire, Ken often ran light traps with Society members in the south west of the county.

Ken was a life-long devotee of the lepidoptera with particular interests in the butterflies of Central America and the moths of Britain. He was a generous man who would go out of his way to encourage other, less knowledgeable, naturalists to become interested in the study of butterflies and moths. He will be sorely missed by his friends.

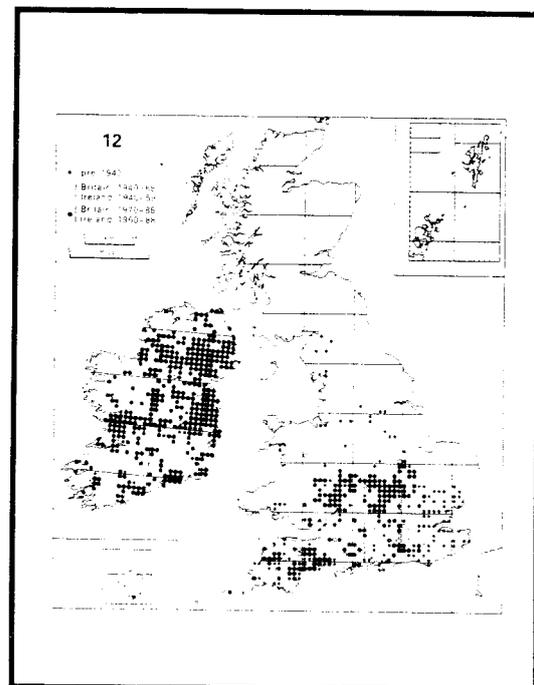
Ray Morris

WOOD WHITE AT CROFT?

1501
The wood white butterfly (*Leptidea sinapis*) is usually associated with woodland, particularly coniferous, habitat. However, a number of non-woodland colonies are known especially in Ireland. Here they may breed in old quarries, railway cuttings and lanes. The species has always been local and has never been common in our county the last known record being in 1976 at a disused Earl Shilton quarry.

During 1989 a keen naturalist thinks he may have spotted two of the species in the Croft area on May 7th. Unfortunately, at the time he was unaccompanied and thus there is no confirmation of the existence of the species in the area. It should be noted that the

Earl Shilton site of 1976 is only a couple of miles away.



BOOK REVIEW

Local Lists of Lepidoptera or a Bibliographical Catalogue of Local Lists and Regional Accounts of the Butterflies and Moths of the British Isles - J.M. Chalmers-Hunt, 1989, Hedera Press, Oxford, 21 pounds.

The author will be familiar to many lepidopterists as the writer of the definitive study of the lepidoptera of Kent, published in the proceedings of the now British Entomological and Natural History Society. This latest work attempts to catalogue lists of lepidoptera published in Britain. The book consists of over 3,000 references arranged in alphabetical order by first author. The index is arranged on a county basis allowing rapid identification of those publications of interest to the reader. In a work of this type it is almost impossible to include all the published lists as the research depended very much upon a range of libraries. Inevitably, many lists published by local societies will have been missed as so often these never reach the main reference collections. Nevertheless, for anyone interested in knowing what has been published in their home area, as well as in an area they intend to visit, the book is a useful starting point.

NEW PYRALID FOR COUNTY

Agriphila latistria was taken at MVL in my garden at Barwell on 4.ix.89. It was in very good condition thus allowing positive identification against the illustration in Goater. The identity of this easily recognised moth was confirmed by Ray Barnett, now of the City of Bristol Museum.

This crambid has a distinctive creamy-white median longitudinal stripe on the fore wing which extends into the fringe. According to Goater the moth is a local species but where found it may be common. The moth frequents coastal sandhills, dry heaths and, occasionally, woody rides in sandy districts. The hot weather of 1989 presumably extended its favoured habitat inland allowing spread of the moth.

Ray Morris

COPY WANTED!

As in previous issues of the LES Newsletter we appeal for more contributions from our members.

Have you come across something that was out of the ordinary? Have you recorded a new species or unusual behaviour in insects? Do you have comments to make on the Society's activities?

Let us have your input to the Newsletter and share your experiences with others!

Don't forget that we would like your more detailed reports for inclusion in the Society's Occasional Publications Series. Have you carried out intensive surveying at a site or have you studied the distribution of a particular group of insects in the county? Let us know - if you are not sure how to go about writing up your work please ask - we'll help!

KETTON QUARRY

A personal viewpoint

Members may remember visiting the disused quarry at Ketton on the night of 31st August 1985 for a moth-recording session. Species that stuck in my mind were the local Tissue and Brown Scallop. Determined to get to know the site a little better, I have endeavoured to visit Ketton at least once a year, the main restraint having been the distance of the site from my home in south west Leicestershire.

17910

17911

Every time I have visited there has been something new. For instance, on one occasion I was fortunate to arrive at the peak flowering time of the common spotted orchids, a common enough species but I have never seen so many at a Leicestershire site.

you may see at the county's other colony at Leire Cutting, but hundreds if not thousands! The hot summer of last year seemed to have definitely ensured the continuance of this colony.

1620

Other plants found in profusion include the unusual yellow-wort, marjoram, eyebrights and wild parsnip. Without doubt the site is a must for botanists but it has other attractions. In 1989 nightingales bred at the site, adders were relatively common and the butterflies were incredible!

Brimstones, common blues and speckled woods were also frequent as were the whites and two of the skippers (large, small). All in all a total of seventeen species of butterfly were seen over a period of a couple of hours.

1546, 1574

1614

1531, 1528

Butterflies galore!

July 19th 1989 saw a friend and myself visiting Ketton to see one of only two known sites of marbled white butterfly colonies in the county. Immediately behind the industrial units a large patch of ragwort attracted our attention. Small tortoiseshells were everywhere together with plenty of peacocks and the occasional comma. Any extension of the industrial units onto this area of waste ground would result in a major nectar source being wiped out.

Under threat?

Ketton quarry is a SSSI but this will not guarantee its safety from neighbouring limestone quarrying activities. Indeed, Ketton Cement has, for a long time, refused to even consider management of the site despite its importance for plants, reptiles, birds and insects.

It was encouraging to read of an agreement at last between the Leicestershire Museums Service and the company to carry out essential scrub management, the single most immediate threat to the natural history interest of the site (*Heritage, 1990, winter/spring issue*).

My main concern is how long will it be before quarrying starts again at, to my mind, the best site in the county.

Ray Morris

In the cutting area the butterfly we had come to see was on the wing, not just the odd one or two that

SUMMER PROGRAMME

Before turning up please check with the leader that the event is still on. Day meetings in the county will meet at 09.45 in the Museum car park or at the site at 10.30. Moth/evening meetings, marked *, will meet at the location at dusk. Check times with leader if unsure. A venue (local pub) for lunch and discussion of the morning's work will be decided in the morning.

- April 1st LOCKINGTON MARSHES (meet at sharp bend on minor road SK479298. Leader: Derek Lott (Leicester 554100 x 3031))
- May 20th CHARNWOOD LODGE (meet at lodge east side of minor road SK457154). Leader: John Bullock (Leicester 554100 x 3090)
- May 26th* PRIOR'S COPPICE (meet at minor road to Leigh Lodge SK834049). Leaders: Ron & Jean Harvey (0536-770259)
- May 27th PRIOR'S COPPICE (meet at minor road to Leigh Lodge SK834049). Leader: Michael Jeeves (Leicester 608659)
- June 9th* KETTON QUARRY (meet at minor road north off the A6121 at SK979054). Leader: Adrian Russell (Leicester 549922 x 6411)
- August 4th* OWSTON WOOD (meet at minor road SK796067). Leader: Adrian Russell (Leicester 549922 x 6411)
- August 5th OWSTON WOOD (meet at minor road SK796067). Leader: John Kramer (Leicester 716499)
- August 11th RIVER EYE (meet at car park behind sports ground off the B676, SK763188). Leader: John Mousley (Leicester 554100 x 3090)
- August 18-19th STAFFORDSHIRE (joint meeting with other local county entomological societies and the British Entomological and Natural History Society, including moth traps. A leaflet with more information is available from Colin Plant on 0279-507697)
- September 2nd ASHBY CANAL (meet at car park at Sutton Wharf near Sutton Cheney village, SK410995). Leader: Steve Grover(0455-202110)

The Society thanks the Leicestershire Museums Service for its advice and cooperation in producing the publications of the LES.

Next copy date: 1st July 1990