

**LEICESTERSHIRE
ENTOMOLOGICAL
SOCIETY**

3

August 1989

ESSEX EMERALD SAVED?

Members may remember the talk by Paul Waring of the Nature Conservancy Council last winter when he told us of national attempts to save several of our rarer moths.

At the time I remember him saying about the plight of the Essex emerald which was down to a handful of larvae - all in his back garden!

A small item on the radio

during June commented that an employee of NCC (PW) had succeeded in rearing this small remnant population such that this year there are over a hundred larvae now being raised.

A couple of years more and there should be sufficient stock to return many of the moths to their habitat.

Watch this space for news of developments!

NEW MEMBERS

Ann Tate, 15 Shipston Hill,
Oadby, LE2 5PS (General)

David Sheppard, 10 Stanfield
Road, Handthorpe, Bourne,
Lincs PE10 0RE

Adrian Sanderson, 425 St.
Saviour's Road, Leicester

Jean & Ron Harvey, 4
Clarkesdale, Great Easton,
Nr Mkt. Harborough LE16 8SP

Muriel Statham, 115 Evington
Drive, Leicester (General)

Andy Rhodes, 15 Wylam Close,
Leicester LE3 9BW

COPY WANTED!

As you will see, this issue of the LES Newsletter is predominantly on lepidoptera. While it is recognised that many of our members do study this group of insects it is not the purpose of the Society to ignore other groups.

So let us have your notes, field observations and drawings. Comment on how you think things can be improved!

Write to Ray Morris at
142 Hinckley Road, Barwell
LE9 8DN.

THIRD COUNTY RECORD!

The status of *Lithophane semibrunnea* (Tawny pinion moth) in Leicestershire and some surrounding counties

In Leicestershire:

The tawny pinion moth, *Lithophane semibrunnea*, was first noted in the eastern part of the county (Rutland) before 1908 and was recorded in the VCH. Since then, only two specimens have come to light: the first, trapped by Audrey Lomax at Blaby in 1983; the latest in March 1989 in a Kirby Muxloe garden.

The moth emerges in autumn, overwinters and then reappears to feed on willow in early spring. It may live up to two months after mating and, according to Heath, often keeps in good condition. *Semibrunnea* prefers sugar to light so may well be missed at trapping sessions where light alone is used.

Goater (1974) and Chalmers-Hunt (1962-8) (in Heath) note "the species seems to be in gradual decline and is now absent from many of its old haunts". Heath (MBGBI vol 10, 1983) cites it as occurring sparingly in western counties.

I wonder if perhaps the species is not actually making a very gradual comeback and working its way further northwards.

In Warwickshire:

The species is cited as

very local and uncommon. It has been recorded in six 10km squares in the 1980s. Dr Ken Greenwood of Pailton had five come to light in the autumn of 1988 and one egg-laying female in spring 1989. The larvae feed on ash.

In Staffordshire:

The moth was not recorded before 1980. Only one has been caught this decade - in the Newcastle-under-Lyme area.

In Nottinghamshire:

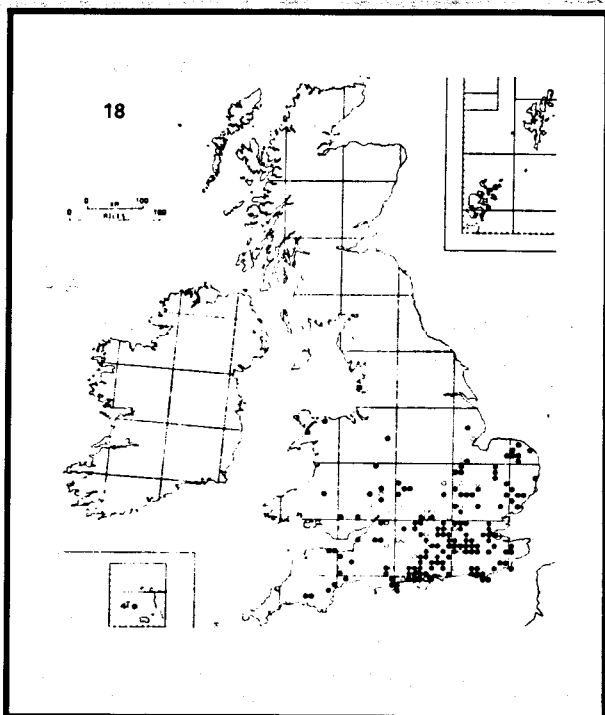
Dr Sheila Wright and Geoff Halfpenny of Wollaton Hall Natural History Museum have sorted moth records from 1955 to the present time. Since 1983 twelve specimens of the moth have been caught yearly from one (classified and confidential) site in the north of the county - perhaps indicative of at least a small breeding population?

In Derbyshire:

The first record for tawny pinion was 31st October 1986 from Elvaston Country Park by A.M. Laxton.

In Lincolnshire:

One or two moths have been recorded most years at Thoresby, near Skegness. The species has also turned up in the Doncaster area



Distribution of *Lithophane semibrunnea* in the British Isles (MBGBI)

on ivy blossoms. All specimens were found in autumn. Unfortunately, no dates or precise details were available at time of writing.

Even in Yorkshire!

L. semibrunnea came to light in the 1980s. This was at Spurn on the east coast on 29th October 1984 (B.R. Spence). There are no records for the species before this time.

Perhaps our recent milder winters and generally wetter springs suit this species. Heath writes:

"the species occurs most frequently in open, rather marshy country". The area in Kirby Muxloe where the moth has most recently been recorded is historically known as "the swamps". It has certainly lived up to its name over the last few years and perhaps, with the many ash trees in the vicinity, provides the required habitat for the species.

Lithophane semibrunnea - one to keep an eye on!

Jane McPhail

SOME MORE GOODIES!

¹⁸⁸⁹ The peacock moth (*Semiothisa notata*) was caught at a mercury vapour light trap at the Old Brake Spinney (SK 491013), a private woodland leased to the Hinckley & District Natural History Society as a nature reserve. The single individual was caught on 22.vii.1989 and constitutes the first record for the species in the south west of the county. It is the first known county record for the 1980s.

At almost the same time, 24.vii 1989, a single example of the migrant Gold Spangle (*Autographa bractea*) was taken at MVL in a Barwell garden (SP 434965). This is the first record for the south west of the county and is the sixth for the county in the present decade. The species is, unusually, a migrant from north Europe. The most recent record is of one from a Leicester garden in 1987 (Audrey Lomax).

Ray Morris

REVIEW

The Entomologist was first published about 150 years ago. It remained in print until 1973. Fifteen years later the Royal Entomological Society relaunched the journal with three issues in 1988, one of which was dedicated to the conservation of invertebrates and their habitats.

Now presented in the more or less standard A5 format, the journal is printed on high quality glossy paper with both colour and monochrome plates. The range of topics covered by the 1988 issues has little regard to geography with the first issue having papers from the Midlands, Peru and Brazil!

While many of the papers are, perhaps, a bit too academic for the amateur, some do provide useful information for the informed enthusiast. For instance, a readable paper entitled "*The adaptable caterpillar*" gives an intriguing insight into how larvae survive in the wild.

We have all seen the "display" flight of the gold swift moth but another paper suggests that such activity enables a female to select her mate from the crowd. However, a word of caution. At first glance a key for the identification of ichneumons found in MVL traps (and who hasn't wondered at what species these are!) may seem very useful. Word is that the key is not always reliable - so use with care! Perhaps this will stimulate production of better keys for a wide range of groups that can be used by everybody - not just the professional entomologist. After all the greatest source of natural history records is always the amateur!

All in all, *The Entomologist* is perhaps too much for many amateurs - but it is certainly worthwhile keeping an eye on for that occasional article which may touch off a spark of interest in a new group.

Ray Morris

(Available from the Royal Entomological Society, 41 Queen's Gate, London SW7 5HU - 1988 subscription was seventeen pounds fifty pence).

THE PROBLEM WITH PRONUBA -

a lepidopterist's lament

2107
A warm, humid, pre-thunderstorm night - a mass emergence of *pronuba* was on the wing. Over 1,000 swarmed into the moth trap, crashing around the limited

space in an agitated frenzy. As hundreds settled onto the egg boxes more came in to beat their way to a resting place. They piled up on top of those already

quiet, provoking them to renewed flight.

Other species flocked into the trap, their lives soon lost in the *pronuba* whirlwind. Scaleless bodies, unrecognisable, fell in lifeless heaps to the trap floor and became buried in the depth of debris.

When the lid was removed for the morning inspection, the trap literally boiled over with excess *pronuba*. They bashed and bumped into the sides before streaming out, a flashing yellow eruption, into the daylight. Scale dust swirled up in clouds, while the egg boxes seethed and writhed with remaining moths.

On such a night without *pronuba*, 78 species have been recorded. On this night only six species, other than *pronuba*, were in a fit state to be identified! As Heath so rightly says:

[pronuba] may fill a light trap to the detriment of other species.

Last year (1988) nearly

2,500 *pronuba* were caught in the garden trap between June and October. Accurate counting became virtually impossible - escapees having to be estimated. With experience the weight of the moth-laden egg boxes gave a good indication of numbers.

Skinner cites this species as widespread and abundant in the British Isles. Its resident numbers are often boosted by migrants from Scandinavia. The larvae overwinter, spending much time below ground. In better weather they come up to feed on a wide range of foodplants. *Buddleia* and other species attract the imago. They are prolific breeders, each heavy-bodied female depositing more than a thousand eggs, many of which apparently successfully reach the imago stage.

With its long flight period, massive numbers and destructive behaviour in the light trap, the large yellow underwing can indeed be a severe problem for the lepidopterist!

Jane McPhail

MIDSUMMER NEWSLETTER MADNESS!

As a result of exchange arrangements with other entomological societies we now have a selection of publications which members can borrow freely. The collection will be available for perusal at meetings of the Society but, if they so wish, members can borrow items for up to three weeks at a time by contacting Derek Lott at the Museum. The current list includes publications from:

Balfour-Browne Club
Berkshire Invertebrate Group
Dyfed Invertebrate Group
Oxfordshire Invertebrate Group
Sorby Record
Derbyshire Entomological Society

Derek Lott

RECENT PUBLICATIONS OF INTEREST

British Journal of Entomology & Natural History Vol. 2

- 1/89 D. Corke. Of pheasants and fritillaries: is predation by pheasants (*Phasianus colchicus*) a cause of the decline in some British butterfly species? pp 1-14.
- 2/89 JA Owen. An emergence trap for insects breeding in dead wood. pp65-67.

Naturewatch - Journal of the Hinckley & District NHS vol 13

- 3/89 R Morris. More historical [entomological] records. pp 5.
- 4/89 R Morris. 1988 Macro-moth report. pp 18-20.

The Bulletin of the Amateur Entomologists' Society vol 48

- 5/89 P Waring. On the larvae of the dark dagger moth *Acronicta tridens*. pp 47-48.

Cecidology vol 4 part 1

- 6/89 M Redfern. Up-date of the keys of the galls of *Arctium* and *Carduus*. pp 7-9.
- 7/89 CK Leach & JA Fowler. *Eriophyes macrorhynchus* prefers the left! pp 19.

Cecidology vol 4 part 2

- 8/89 DP Savage. A review and identification guide to the galls caused by gall midges on *Betula* in Britain. pp 13-15.

If any members know of articles which may be of interest to the Society please let me have details!

Ray Morris

GALL FIELD MEETING

Chris Leach of the British Plant Gall Society and a member of LES has arranged a field meeting at Martinshaw Wood on Sunday October 1st. Ring Chris on Leicester 431011 for more details - all welcome!

1931

MELANIC PEPPERED MOTHS

ON THE DECLINE?

The peppered moth (*Biston betularia*) is a common geometer during June and July. The form *carbonaria* was unknown in the early part of the last century but has since been increasingly reported in the intervening period, in particular from the Midlands and the industrial north. South (*Moths of the British Isles*, Warne, 1946) comments that in such areas this melanic form is predominant over the normal "peppered" form. Skinner (*Colour Identification Guide to Moths of the British Isles*, Viking, 1984) expressed the opinion that these days the melanic form is dominant throughout the country. Indeed, in some parts of the industrial north only *carbonaria* is found.

The link with industrial pollution was established by Kettlewell (*The Evolution of Melanism*. Clarendon Press, Oxford, 1973). There has been an assumption that as air pollution decreases and the effects of heavy industry declines then the incidence of the melanic form would probably fall.

But has this happened?

An examination of eight years data from a garden light trap at rural Barwell does not support the assumption. Indeed, in some years the melanic form accounts for most of the moths trapped (Table 1).

Comparison of this garden data with limited information from two woodland sites (Burbage Wood and Old Brake Spinney) in south west Leicestershire confirms the dominance of *carbonaria* (data not shown).

Is it possible that very slowly the *carbonaria* form of the peppered moth is establishing itself as a sub-species? How do the genes assort themselves if breeding experiments are carried out? Is melanism in species genetically-linked or is it entirely a response to environmental conditions?

I would be glad to hear of any work on such aspects of melanism in the peppered moth.

Ray Morris

Table 1. Peppered moth at Barwell 1982-1989.

Year	No "normal"	No "melanic"	% melanic
1982	0	3	100
1983	3	4	57
1984	5	10	67
1985	3	17	85
1986	2	6	75
1987	5	13	72
1988	8	8	50
1989	1	3	75

WINTER PROGRAMME

- September 11th *Why are insects so difficult to conserve?*
Roger Key, NCC, Peterborough
- October 9th *Bedfordshire is a nice place too - but
not many people realise that yet!*
Paul Hyman from Luton Museum on the
entomology and natural history of
Bedfordshire.
- November 13th *Introduction to the parasitic Hymenoptera*
Bill Ely of Rotherham Museum
- November 25th *Coleoptera workshop*
Tony Drane (Northants), Roger Key (NCC)
and Derek Lott (Leicester Museum)
Field/preservation/identification
techniques for 4,000+ species of beetle.
Beginners particularly welcome!
- December 11th *Sampling and breeding moths*
John Culpin of the Derbyshire
Entomological Society, Chesterfield
- January 8th *Insects of the Derbyshire Dales*
Tony Warne previously NCC officer for
Derbyshire, now NCC Peterborough
- February 3rd *Sawfly and aculeate workshop*
Adam Wright (Coventry Museum), Steve Falk
(NCC) and John Mousley (Leicester Museum)
Identification workshop following up
Adam's introduction to the sawflies last
February
- February 12th *Property development by cynipids - the
biology of galls*
Chris Leach of Leicester Polytechnic and
Secretary of the British Plant Gall
Society
- March 12th *Introduction to the study of Diptera*
Alan Stubbs of NCC, Peterborough, author
of *British Hoverflies*

All meetings at Leicester Museum. Evening meetings start at
7.30 p.m. Workshops start at 10.30 a.m. and run until
4.30 p.m.

NEXT COPY DATE - JANUARY 1ST 1990

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