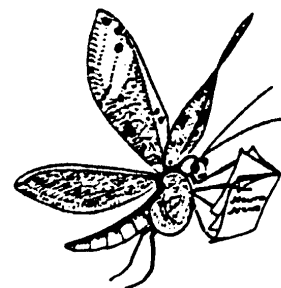


# NEURO NEWS



*The Newsletter of the British Isles Neuroptera Recording Scheme*

*Number 20*

*Summer 1997*

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## WELCOME

Summer is upon us once again and I am delighted to report that I am already receiving completed recording cards for several species noted this Spring. Thanks to everyone who sent cards both from this year and from last year; if you have yet to send YOUR 1996 cards to me please try and do so as soon as possible just in case the opportunity arises to have all the post-Atlas data in my study entered onto the Monks Wood database (if this happens there will be no time to request further records - we will enter what we already have). If this large stack of post-Atlas cards is finally entered at Monks Wood then their data file can be converted to a Dmap file for me to use on my PC here; this means that I can print-out updated maps for the newsletter from time to time and keep everyone abreast of progress. We are still recording lacewings - there are still large areas of Britain where no lacewings at all have yet been recorded. Anyone holidaying in Scotland or Ireland this summer is invited to collect every lacewing they see and send them to me for identification.

On the other hand, progress in recording some British species is progressing rapidly. The ant lion *Euroleon nostras* has now been found by myself and others at a number of sites on the Suffolk Sandlings and also into Norfolk. It is currently the subject of an intensive study being undertaken by me as a Pre-Recovery Project, part funded by English Nature. Further details are given below.

## NEW READERS

A warm welcome is extended to new readers Jim Flanagan and Dr Chris Hartfield.

## JOURNAL OF NEUROPTEROLOGY

Peter McEwen asks me to mention that instructions to authors for the *Journal of Neuropterology* are now available on Neuroweb at <http://entowww.tamu.edu/research/neuropterida/neuroweb.html> for those who are "on the net". For those of us who still believe in dinosaurs, Peter can be contacted rather more conventionally at School of Pure & Applied Biology, University of Wales, PO Box 915, Cardiff, CF1 3TL.

## AIDGAP KEY TO IDENTIFICATION OF LACEWINGS AND ALLIES

All comments on the draft keys have now been received and all the corrections have been made. Several new illustrations have been added and some sections (including Raphidiidae) have been completely re-written. The segregates in the *Chrysoperla carnea* complex have also been sorted out at last! I am expecting to receive page proofs in the next few weeks. The keys will be published first as a paper in *Field Studies* - during the next couple of months. Within a few weeks of this happening, the work will be reprinted and published in a glossy cover as the latest addition to the AIDGAP series produced by the Field Studies Council. I am confident that the keys will be available for purchase before the next newsletter reaches you. In case anyone is still wondering AIDGAP stands for "Aids to the Identification of Difficult Groups of Animals and Plants.

## NEW LACEWING RECORDING CARD IN THE PIPELINE

Most people will realise that some of the species names used on the existing lacewing recording card are totally out of date. Furthermore, several new species of lacewing have been added to the British list since the card was first created in 1987. A new recording card has now been designed by me and has already been DTP'd by the staff at Monks Wood. It is very much hoped that a new recording card will be ready for circulation with the next issue of this newsletter.

## PUBLICATIONS BROUGHT TO MY NOTICE

As usual, this section of the newsletter depends on authors sending reprints or photocopies of their papers to me for inclusion. Recently published papers will, if sent to me, automatically be included; older papers may be included if space permits or if they are particularly relevant. I will include papers from all countries in all languages if they are relevant to the study of Neuroptera, Raphidioptera, Megaloptera or Mecoptera. **Would contributors please note that I try to publish journal titles IN FULL.** If only the "World List" abbreviation is printed on your reprints please write out the title in full in a covering note to avoid any confusion caused by my lack of linguistic skill.

Unless stated to the contrary, papers listed are written in English. In cases where the title is not, I have attempted a translation. If an English summary is given in a non-English language paper this fact is stated. Where it is not, I usually attempt a brief translation of the summary given.

Aspöck, U., 1996 Die Mantispiden Europas. in Gerstmeier, R. & Scherer, G. (Eds.) Verhandlungen des 14. Internationalen Symposiums über Entomofaunistik in Mitteleuropa (SIEEC). München.

The characterisation, phylogenetic position, systematics and biology of the family Mantispidae are briefly outlined. Diagnostic features are presented for the five European species and biogeographical aspects of these are discussed. In German.

Aspöck, U. & Aspöck, H., 1996 *Raphidioptera*. In *Biodiversidad, Taxonomía y Biogeografía de Atrópodos de México: Hacia una síntesis de su conocimiento*. 277 - 286. Universidad Nacional Autónoma de México.

A review of the Raphidioptera of Mexico, as presented to the symposium. In English with Mexican summary.

Aspöck, U. & Aspöck, H., 1996 Revision des Genus *Podallea* Navás, 1936 (Neuroptera: Berothidae: Berothinae). *Mitt. Münch. Ent. Ges.* **86**: 99 - 144.

The Afro-tropical Berothid genus *Podallea* is re-described. The genus comprises 15 species of which five are new and described here. A key to species within the genus is provided. An important review paper. In German.

Aston, A., 1997 Flying power of *Atlantoraphidia maculicollis* Stephens (Raphidioptera: Raphidiidae). *Entomologist's Record & Journal of Variation*. **109**: 113 - 114.

A brief note discussing the arrival of this species at an mv light trap. The information given is expanded on by Horst Aspöck in an invited "Editorial Comment".

Henry, C. S., Brooks, S. J., Johnson, J. B. & Duelli, P. 1996 *Chrysoperla lucasina* (Lacroix): a distinct species of green lacewing, confirmed by acoustical analysis (Neuroptera: Chrysopidae). *Systematic Entomology* **21**: 205 - 218.

*Chrysoperla lucasina* is a valid biological species and can also be recognised in museum collections by a suite of morphological features. The species is widespread in Europe, including Britain. **This paper is recommended reading!**

Hollier, J., Smith, P.H.D. & Mortimer, S. 1996 Habitat use and wing form in *Psectra diptera* (Neuroptera: Hemerobiidae). *Entomologist* **116**: 28 - 30.

*Psectra diptera* records increased in Britain during the 1980s. It is suggested that this increase is due in part to colonisation and related changes in land use. Evidence is also presented suggesting a link between this increase and climate change.

Sziráki, Gy. & Greve, L. 1996 Some Coniopterygidae (Neuroptera) from a mountain rainforest of Tanzania. *Acta Zoologica Academiae Scientarum Hungaricae* **42**(1): 81 - 88.

Describes three new species - *Nimboa pallida* sp. nov., *Xeroconiopteryx unguicaudata* sp. nov. and *Semidalis obscura* sp. nov.. *Semidalis africana* Enderlein is also mentioned. In English

Sziráki, Gy. 1996 Female internal genitalia of *Megalithone tillyardi* Riek, 1974 with comments on the systematic position of the neuropterous families (Neuroptera: Ithonidae). *Folia Entomologica Hungarica* **57**: 277 -284.

This is the first Ithoniid species examined in this detail. The synapomorphies recognised on the basis of newly established homologies support in many respects the systematic scheme used conventionally. In English.

Thierry, D, Ribodeau, M., Foussard, F. & Jarry, M., 1997 Allozyme polymorphism in a natural population of *Chrysoperla carnea* sensu lato (Neuroptera: Chrysopidae): A contribution to the status of the constitutive taxons in western Europe. *European Journal of Entomology* **94**: 311 - 316.

Genetic analysis using polyacrylamide gel electrophoresis clearly indicates the divergence between *Chrysoperla lucasina* and the other two segregate taxa (*carnea* and *kolthoffi*) within the *C. carnea* complex. The genetic similarity between *C. carnea* and *C. kolthoffi* segregates is greater. In English.

## REVIEW

### **PURE AND APPLIED RESEARCH IN NEUROPTEROLOGY. Proceedings of the fifth international symposium on neuropterology, Cairo, Egypt, 2 - 6 May 1994.**

This impressive volume of proceedings is edited by Michel Canard, Horst Aspöck and Mervyn Mansell, all of whom read this newsletter so I had better be careful what I say!!! The volume is dedicated to another of our readers, Herbert Hölzel, on the occasion of his 70<sup>th</sup> birthday. The dedication is accompanied by a splendid photograph of Herbert in the field and it is entirely appropriate that that such an acknowledged expert on the study of the Neuropteroidea should be so honoured.

Twenty-seven contributors from 16 countries met for this fifth annual “bash” to collate research and exchange ideas. The arrangement of the Proceedings is similar to previous issues. Twenty-five papers and posters are reproduced, representing most of those presented, together with a number of reports, discussions and some announcements. Two important papers not presented at the symposium are also included. Sadly, only one of the presentations was made by a British author. Indices of keywords and taxa cited in the text are provided at the end of the book.

It is neither practical nor desirable to discuss all of the papers here, though space and finances permitting I hope to copy the contents pages as an Appendix to this newsletter. However, suffice to say that this, like the previous four volumes of symposium proceedings, is a reference source of the greatest value which no person seriously involved in the scientific study of the Neuropteroidea can afford to be without. Volumes are being distributed at cost, (not sold), by Michel Canard, 47 Chemin Flou de Rious, F-31400, Toulouse, France. The paperback version is available for 80 \$US (400 French Francs) and the hardbound at 100 \$US (500 French Francs).

## BRITISH ANT LIONS ... AGAIN

As already mentioned, British ant lions are currently the subject of an intensive study being undertaken by me. The project is partly funded by English Nature. The study aims to answer a number of fundamental questions...

How many species of ant-lion are present in England? It may seem a daft question, but if *Euroleon nostras* can be overlooked for so long then so can other species.

What is the current English distribution of ant-lions? At present, the population is centred on East Suffolk, at around a dozen different locations. Does this population extend right the way across the Suffolk Sandlings and if not, then why not? Is it present on the coastal dunes of Norfolk as well as those of Suffolk? What about the several potentially suitable sites in the Breckland and what about other sites in Dorset and other areas of the country?

What is the present status of ant-lions on the sites where breeding colonies are found? The largest colony so far located had over 600 larval pits in June 1997 but there are several smaller colonies of 50 or less pits and I even found a single isolated pit on a roadside verge.

Are there any potential or actual threats to ant-lion colonies in England? Some sites are within the confines of protected areas (RSPB nature reserves and National Nature Reserves) and presumably are safe as long as the land managers are made aware of their presence and are properly advised on the most appropriate management methodologies. Others are in picnic areas or other sites to which there is *de facto* public access whilst yet others are on roadside verges. These are potentially at risk and if the present high population suddenly crashes as a consequence of parasitism, predation or some other natural disaster we need to be sure that the small colonies remain intact to permit the population to recover in its own time.

I am also investigating selected aspects of ant lion ecology. A large number of captive larvae (almost all adults will be released at capture site), collected from several sites, are being reared out of doors in separate, isolated containers in as near natural conditions as practical in an attempt to assess various aspects of ant lion life history. Initial observations at Minsmere in April revealed that the wild larvae comprised those in their final instar (these have now pupated after a diet of one house cricket nymph per day), several that had apparently over-wintered in their first instar, and all stages in between. Does this indicate a life cycle of two years? Perhaps there is more than one generation each year? How many eggs does a single female ant lion lay (does each colony represent only a single pair of adults from the previous year?). The critical thing is that the ant lions in Suffolk may not behave in the same manner that they do in the rest of Europe; it is important that we find out the differences, if any. It is also of great interest to learn if any parasites are affecting the English ant lion populations. It is even conceivable that there is a parasite new to Britain out there waiting to be discovered!

It is appropriate to acknowledge that there are also other people currently working on ant lions in Suffolk and that we are all communicating to the full. For the RSPB, Richard Wilson has extremely detailed notes on the colonies at the Minsmere reserve and his localised, intensive study is revealing some very interesting data. Steve Clarke of the Suffolk Wildlife Trust and MSc student Penny Hemphill are both working in full harmony with the English Nature sponsored project and between the three of us we are hopeful that we can locate every ant lion colony in East Anglia during the course of the present year.

## ANT LIONS AND COLLECTING

Whilst many people may feel the urge to visit Suffolk and “bag” a couple of specimens for the collection, I would ask that some restraint be shown for the present. The main populations can certainly withstand minor collecting of larvae, but some of the smaller colonies, which sadly are the ones largely not protected on nature reserves, may be vulnerable. Additionally, whilst Steve, Penny and myself are trying to make regular absolute counts of larval pits at every colony it would be downright unhelpful if someone was to collect all the larvae!!! What would be useful, however, would be for people to visit Suffolk and try to find new colonies - AND TELL ME ABOUT THEM. Please let me have precise details of locations, including a grid reference to at least six figures (preferably eight if you have the 1:25,000 map - the old two and a half inch scale). It is surely also well worth searching in Breckland and in Norfolk. Suffolk colonies are located in the root plates of fallen trees in woodland clearings, on coastal sand dunes,

at the side of arable fields and tracks, on roadside verges and on flat sand surfaces on heathland. Apart from the level ground sites, all other colonies are facing approximately south on the compass.

Ant lions larvae are active NOW. Waste no time - get out there and look for them.

If people do have larvae in captivity, please do keep proper notes on the development, especially dates of larval moults, pupation and emergence, and retain any parasites that may be reared.

#### **EDITORIAL ADDRESSES:**

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*Neuro News* may now also be read by those interested and with access to a computer on the internet at address <http://entowww.tamu.edu/research/neuropterida/neuroweb.html>