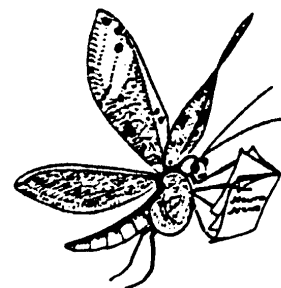


NEURO NEWS



The Newsletter of the British Isles Neuroptera Recording Scheme

Number 18

Summer 1996

WELCOME

THE DINOSAURS ARE FINALLY EXTINCT ...

Well, it had to happen sooner or later. Editorsaurus has entered the twentieth century at last! He can now be contacted by other non-dinosaurs at his E-mail address, which is 101621.1651@compuserve.com. Actually, its quite fun. John Oswald's newsletter contribution below about the electronic neuropterists' directory entered these pages without me touching a key on my word processor or without handling a floppy disk. It came straight from John's computer, via the telephone, into my computer and into the newsletter text file ready for printing. I had to do absolutely nothing which is, of course, exactly as it should be!!! So, I can now accept unsolicited contributions via e-mail. However, I AM NOT PREPARED TO ACCEPT CONTRIBUTIONS ON FLOPPY DISK from any source. At the end of May, some kind person (hopefully not a neuropterist) gave me a disk with a virus on it!!! That nasty little beast wiped out my hard disk by destroying all my .sys, .exe and .dll files when I turned on the computer after having turned it off whilst away collecting in France. It then proceeded to corrupt the hard disk to the extent that I had to buy a new one. The episode cost me several hundred pounds, sixteen hours work and caused the loss of 600 megabytes of files and data. Because I was careful to back up all my work, the virus was backed up too!!! **Unsolicited computer disks will be unceremoniously consigned to the dustbin without examination!**

NEUROPTERA HOME PAGE ON THE WORLD WIDE WEB

This may be found at <http://entowww.tamu.edu/research/neuropterida/neuroweb.html> for those who have internet connected computers at home or work.

ADDITIONS TO THE MAILING LIST

Welcome to new subscriber **Michael Chinnery**, Michael is well known to British readers for his excellent "field guides" to insects, published by Collins. Also welcome to **Mark Burgess**, **Agostino** and **Bojana Mencinger**.

CHANGES OF ADDRESS

Dr Christoph Saure has moved to [REDACTED]. **Dr John Oswald** has also "upped sticks" and moved to [REDACTED]. Please amend your own files accordingly.

NEW ELECTRONIC NEUROPTERISTS' DIRECTORY

JOHN D. OSWALD, Department of Entomology; Texas A&M University; College Station, TX 77843-2475, USA

A central problem that we all face in communicating with others with shared interests in neuropterology is how to send and receive messages. This is an age-old problem, most often solved by the compilation and maintenance of personal mailing lists. While this can be a good solution, it also has the drawback that each person must continuously update their own list, resulting in lists of differing "qualities" in the hands of different individuals. With the origin and spread of new electronic communications technologies (e.g., fax, e-mail, gopher, ftp, web pages, etc.) the problem of maintaining up-to-date lists of the various communications numbers and addresses associated with different individuals has greatly increased. One possible solution to this problem is the development of a centralised repository

for this "directory information". This kind of repository would also require updating with the passage of time, but it would have the great advantage of ensuring rapid distribution of updated information to anyone/everyone in the world who had access to (or a friend with access to) the electronic system. With current technology it is possible to create a system containing directory information for all of the world's neuropterists. With this objective in mind, Peter McEwen and I have undertaken the task of implementing the "Neuropterists' Directory" as a set of "web pages" available for public access over the World Wide Web. In addition to containing basic communications data like mailing addresses, the Directory will also attempt to compile related information such as phone numbers, fax numbers, e-mail addresses, home page URL's, and the neuropterid-related interests of the world's neuropterists. To complement the information on individuals, we will also be assembling a companion list of companies that provide neuropterid-related goods and services. All of this information will be available on-demand electronically, and will be able to be printed to paper for additional distribution to individuals without electronic access capabilities.

As will be immediately apparent, to make such a list as complete, accurate and comprehensive as possible we will need the co-operation of the world's neuropterists to compile the initial directory. At the present time we are asking anyone who would like to be included in this directory to fill out the form below and to return it to Colin Plant. Colin will gather the individual data forms and forward the data on to Peter or myself for addition to the Directory. Not all information fields will be appropriate for all individuals. Fill in the fields that are appropriate for you, and mark the others "n/a" or "none" as appropriate. Below the form is a sample copy of a completed directory entry. Please mimic the entry formats used in this sample when you are completing your form. We appreciate your co-operation in this effort and look forward to being able to provide the world's neuropterists with a accurate working directory in the near future. The debut of the directory will be advertised over Neuroptera-L and in this and other newsletters likely to be read by neuropterists.

Neuropterists' Directory Information Form

Name:

Title:

Mailing Address:

Phone Number(s) [include country/city/area codes]:

Fax Number(s) [include country/city/area codes]:

E-mail Address(s):

Home Page URL:

Interests:

Research Emphases:

Current Projects:

A completed Neuropterists' Directory entry is shown below. Please imitate this format when submitting your data.

Name: Dr. John D. "John" Oswald

Title: Assistant Professor

Mailing Address: Department of Entomology, Texas A&M University, College Station, Texas 77843-2475, USA.

Phone Numbers: 409-862-3507 (office); 409-862-3508 (lab); 409-845-9766 (secretary, Cathy Banks). Fax Number: 409-845-6305

E-mail Address: j-oswald@tamu.edu

Home Page URL: <http://entowww.tamu.edu/oswaldj.html>

Interests: systematics, phylogenetics, taxonomy, biogeography, nomenclature, and evolutionary theory

Research Emphases: phylogeny and biogeography of neuropterid insects

Current Projects: (1) higher phylogeny of the Myrmeleontoidea, (2) revision of the genus *Osmylops* [Nymphidae], (3) revision of the Polystoechotidae, (4) intergeneric phylogeny of the Nymphidae

Last Update: 12.iii.1996 (JDO)

COLOUR RATIOS IN HIBERNATING *CHRYSOPERLA CARNEA* IN SCOTLAND

E. GEOFFREY HANCOCK, Glasgow Museums

In November last year I noticed a number of hibernating *Ch. carnea* around a window frame, one of three opening lights in a conservatory in a house near Strathaven, Lanarkshire, about 20 miles south of Glasgow. I collected some to examine and kept them alive in a container, noticing no further change in their colour even after they died several weeks later. I made a mental note to check again in spring to see how many and of what colour any others might be. I did not open the other windows at the time in case the insects were crushed on closing again. Subsequently I rather forgot about this intention until I was asked to provide some data on 2-spot ladybirds for a Ph.D. student's work and sought them also in the conservatory. I then examined the *Ch. carnea* revealed and the results are as below.

	green	brown
November 16, 1995	4	5
February 23, 1996	13	15

There were one or two specimens which were 'intermediate' in some respects. The overall impression of golden brown was tempered by the wings retaining a green sheen and/or the thorax still had a yellowish central stripe and was greenish laterally. However, the overall jizz was brownish and they had certainly changed from the basic green condition so they were counted as browns. From the albeit small sample, it appears that the ratios are roughly 50/50 in this locality.

I had imagined it possible that in hibernation some at least of the green ones might turn brown. This could be easily tested by moving the two colour batches into separate locations at the start of the cold weather. This would seem to be easier than marking individual insects and is something to consider as an experiment at a suitable site. The oft repeated statement that hibernating *Ch. carnea* turn brown obviously does not apply here. I have often seen green lacewings in winter but had imagined that the books were either wrong or that those not already brown would become so by the end of the cold season. This was my reason for inspecting the small colony as described above.

We experienced a period of several days of temperatures of from -20°C to -22°C in late December. As the conservatory is unheated any mechanism for cold-induced colour change had plenty of time to operate. It thus appears that these lacewings adopted their hibernating colour, by whatever mechanism, as they went into hibernation and subsequent events have had little or no effect.

LACEWINGS IN GRASSLAND D-VAC SAMPLES

JOHN HOLLIER, Banbury, Oxon.

Whenever I write about lacewings the phrase "crepuscular and mainly arboreal predators (Fraser, 1959)" usually appears in the first sentence. It is normally followed by Colin's insistence that they are really nocturnal, and something about grasslands. Why stop now?

At the Imperial College Field Station at Silwood Park, a long term study of old-field succession has been going on since 1977. Plots have been taken out of arable cultivation in most years since then, and form a mosaic of habitats ranging from ruderal to scrub. In 1989, malaise traps were placed on some of these plots and the results suggested that some lacewing species were true grassland species, while others preferred scrub to older woodlands (Hollier & Belshaw, 1992. *Entomologist* **111**: 187-194). Although the assemblages recorded in this way showed clear successional differences, there remains the problem that malaise traps catch insects flying over a habitat which need not be the same thing as those living in it. Fortunately, as part of the long term study other insect sampling methods have been used, most extensively the D-vac. This samples insects in the vegetation, and is a very effective method of collecting all but the most active, and fast flying, groups. It has the added advantage that, unlike the malaise traps, this method will collect larvae if they are present.

Some information is available for over 30 assemblages (ie the insects recorded from a plot in a given year), but I will only present data for the 18 where I identified the material. There are three aspects to address: which species are found in grassland plots, and do the species richness or the abundance of lacewings show successional trends.

Species

There are only five species of lacewing which appear as adults in the D-vac samples, although it is possible that some of the larvae may represent others. The rank order of abundance is shown in Table 1. *Psectra diptera* was represented by a single specimen, but the other species were fairly abundant. The ratio of Hemerobiidae and Chrysopidae was similar in larvae and adults, which increases confidence in the representativeness of the adults found.

Table 1. Rank abundance of lacewings in the grassland plots.

D-vac	Malaise trap
1 <i>Micromus variegatus</i>	1 <i>Wesmaelius subnebulosus</i>
2 <i>Micromus angulatus</i>	2 <i>Chrysoperla carnea</i>
3.5 <i>Chrysoperla carnea</i>	3 <i>Chrysopa perla</i>
3.5 <i>Chrysopa perla</i>	4 <i>Micromus angulatus</i>
5 <i>Psectra diptera</i>	5 <i>Hemerobius humulinus</i>

The abundant species were identified as grassland or scrub dwellers in our previous survey, although *P. diptera* was not recorded. This species may have been missed in the malaise traps because of a disinclination to fly, but the specimen was macropterous and taken in the most recent sample considered (1993), so this record may be evidence of colonisation. It is nice to note that Silwood Park retains its position as the premier site for *Micromus angulatus* (Plant, 1994. *Provisional Atlas*).

More interesting is the absence of specimens of other lacewings found in malaise trap samples mainly from these plots; *Wesmaelius subnebulosus*, *Mallada prasina* and *Micromus paganus*. The inference has to be that these species, which are probably associated with scrub rather than woodland proper, are more likely to fly over open areas than the true woodland lacewings, but do not make much use of these grassland habitats. There is also a suggestion that there is more of a difference between the habitat preferences of *Micromus angulatus* and *M. paganus* than was previously thought.

Species richness

The species richness of 17 grassland plots are shown in Figure 1, along with a sample from woodland. This was an attempt to sample in a way which allows comparison with D-vac samples (Southwood et al, 1979. *Biological Journal of the Linnean Society* **12**: 327-348), and while not totally convincing, is at least an illustrative. Species richness is low in all of the samples compared with the malaise traps, but it must be remembered that only small areas of ground are sampled by D-vacs, and only adults were identified. There is a clear trend for species richness to increase with age, as we would have expected from previous work.

Lacewing abundance.

One of the merits of D-vac sampling is that, because it samples a fixed area, it provides good estimates of density. The densities of the 18 assemblages, including larvae, are shown in Figure 2. There is no relationship between density of lacewings and successional age, not least because of the large variance. This reflects the patchiness of lacewings in the grasslands, which was evident in the sub-samples. In particular it should be noted that the highest and lowest densities are from the plots where the smallest area was sampled with the D-vac.

Figure 1. Number of species of adult lacewings found in D-vac samples plotted against log age.

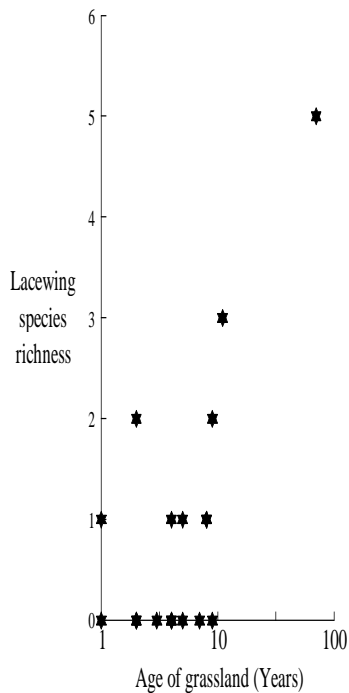
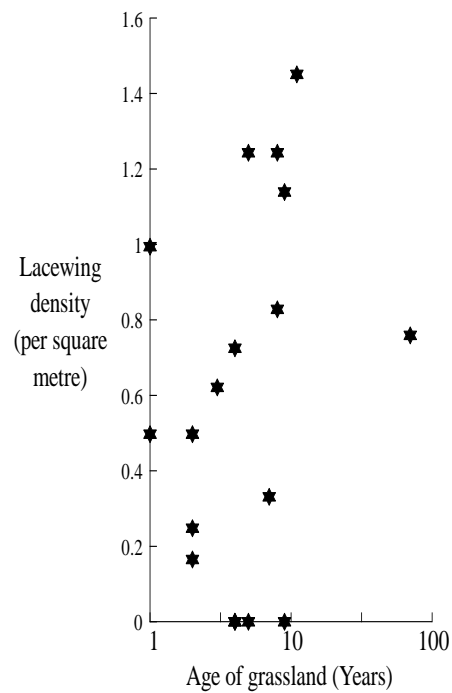


Figure 2. The number of lacewings per square metre in D-vac samples plotted against log age.



The results show that lacewings are important predators in grassland. The average density of lacewings is similar to that of carabid or staphylinid beetles in these plots, suggesting that the ecological importance of lacewings in grassland may have been underestimated.

The conclusion of this look at lacewings in the D-vac samples from Silwood is that some lacewings are true grassland species, and that they can be an important part of the predatory guild. The D-vac is shown to be a useful method of sampling for lacewings in grasslands, but the small areas actually sampled, and patchiness of lacewing distribution, mean that caution must be exercised when interpreting the results, especially negative evidence. Allowing for this, it is clear that this method will be able to provide more information on the habitat requirements of some of the lacewings using the field layer. It may even be enough to get the D-vac into the collecting methods section of the AIDGAP key!

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. 1995 Neue Hypothesen zum der System der Neuropterida. *Mitteilungen der Deutschen Gesellschaft für allgemeine und angewandte Entomologie* **10**: 633-636.
- In German. Arguments for a sister group relationship between Megaloptera and Neuroptera, mainly based upon the hypothesis of aquatic larvae deriving from a common stem species. Consequences in relation to Neuroptera systematics are presented.
- Aspöck, H., Aspöck, U. & Rausch, H. 1995 Untersuchungen über die Raphidiiden von Kirgisistan: Übersicht der nachgewiesenen Arten und Beschreibung von vier neuen Spezies (Insecta: Neuropteroidea: Raphidioptera: Raphidiidae). *Entomologische Nachrichten und Berichte* **39**: 165-182.
- During an expedition to Kyrgyzstan in 1995, three of the four known *Mongoloraphidia* species reported from the region were rediscovered and a further four species of *Raphidia* sensu lato were new to science. The new species are described and the wings and male & female genitalia are figured. In German.
- Devetak, D. 1995 *Deleproctophylla australis* (Fabricius, 1787) in Istria and Quarnero (Neuroptera: Ascalaphidae). *Annals for Istrian and Mediterranean Studies*. **7/95**: 193-198.
- The distribution of this species in the north-west Balkan peninsula is discussed and some observations on adult morphology, habitat characteristics and behaviour are described and figured.
- Hewitt, S. 1995 Cumbrian lacewings (snake-flies, alder-flies and scorpion-flies): A provisional Atlas, 1995. Published by Tullie House Museum, Carlisle. **Reviewed in this newsletter.**
- Hölzel, H. & Ohm, P. 1995 Vier neue Chrysopidae-Spezies aus der Madagassis (Neuroptera). *Zeitschrift der Arbeitsgemeinschaft Österreicher Entomologen* **47**: 112 - 118.
- Four new chrysopids from Madagascar are described. In German.
- Iori, A., Kathirithamby, J., Letardi, A., Panatleoni, R. & Principi M. 1995 Neuropteroidea (Megaloptera, Raphidioptera, Planipennia), Mecoptera, Siphonaptera, Strepsiptera. In Ninelli, A., Ruffo, S & La Posta, S. *Checklist delle specie della fauna italiana*. Number 62, pp 1 - 20. Edizioni Calderini, Bologna.
- A checklist of the Neuropteroidea and Mecoptera of Italy. In Italian.
- Letardi, A. 1994 Ascalafidi: un gruppo di insetti da rincorrere per prati, musei e biblioteche (Neuroptera: Ascalaphidae). *Bollettino dell'Associazione Romana do Entomologia* **49**: 45 - 54.
- Ascalaphids: an insect group to look for through grasslands, museums and libraries. Some nomenclatural problems are discussed. *Ascalaphus italicus* Fabr. *Sensu Dei*, 1862 is a misidentification of *Libelloides longicornis* (Linn.). In Italian.
- McEwen, P.K. 1995 Attractiveness of yellow sticky traps to green lacewings (Neuropt., Chrysopidae) *Entomologist's Monthly Magazine* **131**: 163-166.

- McEwen, P. K. 1996 Viability of green lacewing *Chrysoperla carnea* Steph. (Neuropt., Chrysopidae) eggs stored in potential spray meadia, and subsequent effects on survival of first instar larvae. *Journal of Applied Entomology* **120**: 171-173.
- McEwen, P.K. & Kidd, N.A.C. 1995 The effects of different components of an artificial food on adult green lacewing (*Chrysoperla carnea*) fecundity and longevity. *Entomologia Experimentalis et Applicata* **77**: 343-346.
- McEwen, P.K., Jervis, M.A. & Kidd, N.A.C. 1996 The influence of an artificial food supplement on larval and adult performance in the green lacewing *Chrysoperla carnea* (Stephens). *International Journal of Pest Management* **42**: 25-27.
- Ohm, P. & Hölzel, H. 1995 Die Neuropteren der Seychellen. *Entomologisches Nachrichtenblatt*. **2**: 3 - 12.
Sixteen species of lacewing in four families are recorded from the Seychelles. In German.
- Plant, C. W. 1996 *Nineta inpunctata* (Reuter, 1894) (Neuroptera: Chrysopidae): a green lacewing new to Britain. *Entomologist's Gazette* **47**: 115-120.

The following short papers are brought together in *Berichte des Kreises Nürnberger Entomologen e.V. Galathea. 2. Supplement. Nürnberg, 1995*. It is beyond the bounds of duty, I think, for me to attempt to translate all of these into English. However, note that the paper by Peter Duelli contains a key to the segregate taxa within the *Chrysoperla carnea* complex.

- Aspöck, H. & Hölzel, H. Die Neuropteroidea Europas und des Afrikanischen und Asiatischen Mittelmeerraums: Ein vergleichender Überblick.
- Duelli, P. Neueste Entwicklungen im *Chrysopa carnea* - Komplex.
- Hölzel, H. Was ist unter *Chrysopa prasina* Burmeister, 1839 zu verstehen
- Ohm, P. Wer oder was ist *Chrysopa abbreviata* Curtis, 1834 ? - Eine vorläufige Übersicht.
- Ohm, P. Coniopterygidae in Bernstein-Einschlüssen Eine vorläufige Übersicht.
- Röhricht, W. *Myrmeleon (Morter) bore* (Tjeder, 1941) in Deutschland.
- Rupprecht, R. Anmerkungen zum Paarungsverhalten von *Sisyra*.
- Yasseri, A.M. Zum Fortpflanzungssystem von *Euroleon nostras* (Geoffroy) (Myrmeleontidae, Neuroptera, Insecta).

SIXTH INTERNATIONAL SYMPOSIUM ON NEUROPTEROLOGY - HELSINKI

This event will take place in Helsinki, Finland on 13 - 16 July 1997. Regrettably, details were received after the last newsletter had appeared - the closing date for preliminary registration was the end of May 1996, so everyone is theoretically too late to go. I have no idea how well subscribed it is, so anyone really interested who missed the deadline might try writing to the organiser, Martin Meinander, at Finnish Museum of Natural History, P.O. Box 17, FIN-00014 University of Helsinki, Finland. I am proposing to go and have already registered. All I need to do now is find some funding (conference fees and hotels etc. are going to cost about 500 in total). If anyone has any serious ideas for funding, please let me know - I have 3 papers to present but no cash!!!

BOOK REVIEW

Cumbrian Lacewings (Snake-flies, Alder-flies and Scorpion-flies): A provisional Atlas. Anonymous. Published from the Tullie House Museum, Carlisle.

For the benefit of our non-British readers, Cumbria is that area of England which is referred to in the tourist brochures as "The Lake District". It comprises the old vice-counties of Cumberland, Westmorland and part of North Lancashire and is the extreme north-west corner of England before reaching Scotland.

The booklet comprises 96 un-numbered pages of print which, strangely, includes the inside of both the front and rear cover. For each species, a distribution map for the region is given showing records by tetrad (2 km x 2 km squares). Three date bands are employed - pre-1960, 1960 - 1989 and 1990 - 1995. Opposite the map, on the left hand page a print-out from the RECORDER data-base of all records is given together with a brief description of each species and a summary of its status in Britain as a whole and in north-east England.

I have to say that whilst it is useful indeed to have a detailed print-out of all the available records from the Carlisle database I am deeply disappointed with both the style and presentation of the data which are printed straight from the RECORDER biological recording programme (although I have no problem with the maps which should prove of great use to ecologists, naturalists and others active in the region). The RECORDER software uses checklists which I was responsible for producing in 1983 and the names are all quite out of date (all green lacewings are referred to genus *Chrysopa* for example). It is a pity that they could not be altered manually in this publication (they are indeed updated on the accompanying maps). The description of the species is similarly dated; much new information is available in the *Provisional Atlas* and in these newsletters and some of this could have been used. It would have been far better to replace these RECORDER sourced descriptions with a section of free text, cut and pasted over the print-out, concerning each insect in the Cumbrian region. The summary of status in north-east England is another feature of RECORDER; I can not see why it is included in a booklet on the north-west of the country!

The booklet is totally lacking in other information. There is no introduction, no summary of data presented, not even a sentence telling us how many species are recorded in total. The pages are un-numbered and the author's name is absent as is the purchase price and the address of the Tullie House Museum, so that we are left not knowing where to obtain a copy unless we have access to the *Museums Yearbook*.

In summary, a useful working document and a good start but I look forward to an updated version in due course. For those who are interested the Tullie House Museum is at Castle Street, Carlisle, Cumbria, CA3 8TP.

COPY FOR NEXT ISSUE - by end of November 1996, please.

EDITORIAL ADDRESSES:

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EDITED BY Colin W. Plant at 14 West Road, Bishops Stortford, Hertfordshire, CM23 3QP, England, to whom all contributions and requests concerning the scheme should be sent. **Specimens for identification of verification** are positively welcomed at the editorial address provided that they are accompanied by full data. Please, always state whether or not return of the specimen(s) is required otherwise they will be retained in my collection. For larger packages, please enclose return postage stamps. Telephone/Facsimile callers on 01279-507697 (UK) or 00-44-1279-507697 (from overseas). E-mail 101621.1651@compuserve.com