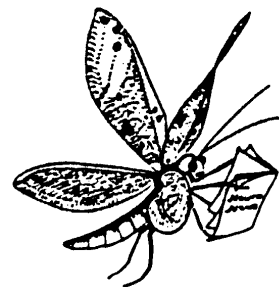


NEURO NEWS



The Newsletter of the British Isles Neuroptera Recording Scheme

Number 24

Summer 1999

Articles for this newsletter are warmly welcomed. Ideally, contributions should be sent by e-mail or else as a file readable by Word for Windows on a disk in a PC compatible format. Typed or hand-written contributions are acceptable if you do not have a word processor.

EDITORIAL ADDRESSES:

Neuro News is published by the BRITISH ISLES NEUROPTERIDA RECORDING SCHEME from the Biological Records Centre, ITE Monks Wood, Abbots Ripton, Huntingdon, PE17 2LS, England and is

EDITED BY Colin W. Plant at 14 West Road, Bishops Stortford, Hertfordshire, CM23 3QP, England.

Specimens for identification or 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 ++44-1279-507697 (from overseas). E-mail

Colinwplant@compuserve.com

Neuro News may now also be read on the internet at address <http://entowww.tamu.edu/research/neuropterida/neuroweb.html>

Back numbers of *Neuro News* may be obtained from Biological Records Centre, ITE Monks Wood, Abbots Ripton, Huntingdon, PE17 2LS, England.

Details of British Isles recording schemes for other invertebrate groups may be obtained from Dr Henry Arnold at the Monks Wood address.

WELCOME

Welcome to the summer 1999 newsletter of the British Isles Neuropterida Recording Scheme. A little later than usual, but here nevertheless.

The big news since the last newsletter is that all the record cards received by me between the publication of the *Provisional Atlas* and the Spring of this year have now been validated, coded and taken by me to the Monks Wood Biological Records Centre. Henry Arnold assures me that the data will be entered onto the computer there fairly soon. Once this is done, Henry will supply me with a Dmap data file of all the records and it will be possible

for me to then generate updated maps for inclusion in the newsletter from time to time. This should help us to know where to concentrate our recording efforts into the future. Watch this space!

This does not mean, of course, that there is no longer a need to send in cards. There is !!! Once I have the map files I will be able to update my own computer as the cards come in and keep the distribution maps bang up to date. So do please send in those completed cards on a regular basis and always remember that I am happy to look at specimens as long as they come with full data.

Equally important is the discovery by Andy Whittington of *Symphorobius klapaleki* for the first time in the British isles (see Whittington, 1998 in publications list which follows - on page 5). An adult male was bred out of a pupa found in dead oak twigs from Berkshire during 1994 and was incorporated into a collection without being identified. Andy's paper provides a key which should be useful when used in conjunction with the genitalia drawings in my AIDGAP key. How many more specimens are there out there awaiting discovery, I wonder?

Other interesting records have been received. From Oxfordshire, John Campbell sent me several specimens including *Osmylus fulvicephalus* from a malaise trap at Sarsgrove, between 27 May and 23 June 1994 (new to Oxfordshire) and *Sialis fuliginosa* in the same trap between 6 and 26 May 1994 (only the 4th Oxfordshire record). At Minster Lovell Meadows an alderfly swept from unimproved neutral grassland turned out to be a male *Sialis nigripes* - only the second record for the county. Across the water in Ireland, collecting by Keith Alexander turned up *Hemerobius humulinus* and *Micromus variegatus* — both new to Ulster as a whole, although both are recorded in the Irish Republic. All his other records were new 10-Km dots indicating just how poorly recorded Ireland is. Anyone holidaying over there this year should collect all the lacewings they can find and if there is no time to name them, then please send them to me.

Some sad news is that Richard Warren, who was Lepidoptera Recorder for Staffordshire as well as a keen Neuropterist, died on Monday 11th January. He spent the last few months in a nursing home and deteriorated slowly - a sad way to go for someone once so active. It is a great loss to the world of entomology. I gather that his collection has been moved to the Potteries museum in Stoke-on-Trent.

In the same breath, I welcome new reader Penny Hemphill.

Sending in your records

I look forward to receiving completed record cards for British Isles lacewings and allies. Free recording cards are available from the Monks Wood address on page 1. Please send completed cards to me as soon as possible so I can continue to update the distribution maps.

Journal of Neuropterology

The International Association for Neuropterology announces the publication of Volume One of the *Journal of Neuropterology*. Volume two is ready to go to press.

The *Journal of Neuropterology* will publish works on all aspects of the neuropteroid orders Neuroptera, Raphidioptera and Megaloptera, including, but not restricted to, systematics, taxonomy, morphology, ultrastructure, faunistics, ecology, behaviour, genetics, biology, physiology, biogeography, biodiversity, cytology, development, phylogeny, evolution, and biological control. The Journal will publish original research papers, short research and informational notes and book reviews. Research papers must be based on original research and not have been submitted for publication elsewhere. Research notes and book reviews of no more than two pages, and without figures or summaries, will be published at the discretion of the Editorial Board. Informational notes concerning matters such as theses and dissertations, current projects, news, events, meetings, etc. that are of clear interest to the neuropterological community will also be considered for publication.

All communications, including manuscripts and news should be sent to the Editor: Prof. Dr. V. J. Monserrat, Departamento de Biología, Animal I, Facultad de Biología, Universidad Complutense de Madrid, E-28040 Madrid, SPAIN, e-mail: artmad@eucmax.sim.ucm.es.

All manuscripts submitted to the *Journal of Neuropterology* will be reviewed by at least two referees. Final decisions on acceptance of manuscripts will be made by the Editorial Board.

Subscriptions are welcome from anywhere in the world, but if you have problems with payment from outside the UK, please contact the Treasurer. The subscription to each volume is £40 and should be sent to the Treasurer by one of the following methods:

Payment should be in Sterling to the International Association for Neuropterology. The subscriber should pay commission on international exchange and postage so that the full £40 is received and everybody is paying the same amount for the subscription. Payments should be made to the Royal Bank of Scotland, Edinburgh, University Branch (sort code 83 1909) in the account: 00255631, Scotland, UK. International bank order, banker's draft, direct bank transfer, Traveller's Cheques or EuroCheques will be accepted.

Correspondence regarding subscriptions should be addressed to A.E. Whittington, National Museums of Scotland, Chambers Street, Edinburgh, EH1 1JF, Scotland, U.K. (email: a.whittington@nms.ac.uk). Formal receipts issued by the Treasurer and issue of the Journal to the subscriber will be forwarded as soon as possible. Please inquire if you have not received either within a reasonable period of time after payment.

SIXTH INTERNATIONAL SYMPOSIUM

The 6th International Symposium on Neuropterology will be held in Budapest, Hungary from 6th to 10th August 2000. The scientific programme covers all fields of research on Neuropteroidea including anatomy, biogeography, biology, ecology, ethology, external morphology, phylogeny, systematics, taxonomy and other areas. The registration fee is US\$200 for full members and US\$100 for student members. Accommodation is available at a variety of prices - all remarkably low by western European standards. A post-congress tour is also available in two parts. The first is on 11th - 12th August to a gallery forest on the Danube at Gemenc, the Kiskunság National Park with Juniper-Poplar forest, scrub and dry grassland and the Balaton National park on the north coast of Lake Balaton. The second part runs from 13th - 15th August and visits Transdanubia. There is an additional charge for the visits. Further details are available from Dr György Sziráki, Hungarian Natural History Museum, Baross u. 13, H-1088 Budapest, Hungary. E-mail: sziraki@zoo.zoo.nhmus.hu

Encounters with the "tin-can lacewing", *Micromus angulatus* (Stephens)

Roger D. Hawkins, Surrey

A discarded aluminium drinks can was collected from Park Downs, Banstead, a chalk grassland SSSI in Surrey, while doing conservation work on a winter's day. On my return home, this can was washed superficially and placed in the bath with some other cans for recycling. Later that evening an insect emerged from it. The specimen was submitted to the recording scheme via Graham Collins, who named it as *Micromus angulatus*. The location, and the date of 6th December 1993, suggesting an over-wintering adult, make an interesting record.

During the autumn of 1998 I was out in the Surrey countryside recording insects on most fine days. My target was an entirely different group of insects, but any Neuroptera encountered were kept for the recording scheme. The method of searching was to give a sideways tap to clumps of grasses and other tall herbs, and knock insects out onto a beating tray. At the edge of a sandy, arable field near Farnham, I tapped many small brown lacewings from grasses and mugwort *Artemisia vulgaris*. Thinking that more than one species might be involved, I took five specimens out of the 14 similar insects encountered, but all were *Micromus angulatus* and all were female. On examining my collection at the end of the season, I found three other specimens of this species from Surrey and one from Berkshire, again all female and all tapped from grass tufts or tall herbs. All these records fell into a short period from 12th to 19th October, whereas from 5th August until this period I had not encountered the species at all, in spite of using similar methods to search similar habitats. This suggests a synchronised emergence, perhaps of a second or an over-wintering generation, and also that flight times may be much more precise over a single season than is given in the *Provisional Atlas*, in which records from different years are combined. Alternatively, it is possible that these female lacewings were old insects that had come from another habitat into the grass tufts, possibly to hibernate. Unfortunately, after 20th October I went into hibernation myself and made no more records.

It would be interesting to know if other recorders also encountered this insect only during this very limited period in late autumn, and if a similar pattern is shown by records sent to the recording scheme in other years. During the coming season I shall be repeating the same kind of searching over the same autumn period and I look

forward to more encounters with this enigmatic little lacewing.

Book Announcement

Neuropterida: Raphidioptera, Megaloptera, Neuroptera (Kamelälse, Schlammfliegen, Ameisenlöwen).

Dr Horst Aspöck has e-mailed me to say that an exhibition solely devoted to Neuropterida opened in the Biology Centre of Linz (Upper Austria) on 26 March 1999. This is probably the first exhibition on Neuropterida ever staged. To mark the occasion, a book has been published of which Dr Aspöck is the scientific editor. It contains some articles in German and some in English. The quality is very high and includes colour plates. Stitched and hardbound, the book costs 400 Austrian Schillings - or about £20. Postage is an extra 75 Schillings. An abbreviated English list of contents follows.

Camelnecks, Alderflies, Antlions ... What are they? U. Aspöck & H. Aspöck

Honeydew and silent songs: habitat and partner finding in green lacewings. P. Duelli

Evolution and success of antlions. M. Mansell

Biological and chorological characterisation of the Raphidiidae of the Eastern Palaearctic and distribution maps of the species so far recorded in Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan and Tadzhikistan. H. Aspöck, U. Aspöck & H. Rausch.

Inventory of Australian Megaloptera larvae and resulting implications for the classification of the group. G. Theischinger

Preimaginal stages, biology and ethology of European Sisyridae. W. Weißmar

The Nymphoptera of Arabia. H. Hölzel

Neuroptera and biological control. T. R. New

The value of Neuroptera as bio-indicator taxa. Suitability as a model-group, choice of methods, examples and a discussion of possible questions. J. Gepp

Descriptions and illustrations of Mantispidae in the early entomological literature and Austria's contribution to mantid-fly research. H. Aspöck

I have received reprints of the first, fourth and last listed and they are certainly of the very highest standard of reproduction and, of course, of the high quality in terms of content which we have come to expect from the Aspöcks. If these are representative of the remainder then the book is well worth the very low price. The book can be ordered from: Das OÖ. Landesmuseum, Biologiezentrum Linz, Johann-Wilhelm-Kleinstraße 73, A-4040 LINZ, AUSTRIA.

Going to Ireland this summer ???

All records (or specimens) are needed from this poorly recorded country. If you are holidaying there please don't forget to take your net with you !!!

RECENT PUBLICATIONS

Recently published papers relevant to the study of Neuroptera, Raphidioptera, Megaloptera or Mecoptera will, if sent to me, automatically be included; older papers may be included if space permits or if they are particularly relevant.

The papers listed in the book announcement on this page are not included here.

Aspöck, U. & Aspöck, H., 1998 Intra- und interspezifische Differenzierungen im Genus *Nodall* (Neuroptera: Berothidae) im Eremial der Westpaläarktis. *Entomol. Gener* **23**: 39 - 76.

Nodalla (Navás) is distributed in the West Palaearctic desert belt from West Africa to Afghanistan and contains 11 species in two subgenera. Three new species are described and figured and two others are re-described. The distribution of all species is plotted. In German.

Aspöck, U., Aspöck, H. & Rausch, H., 1999 *Mongoloraphidia gulnara* n. sp. - eine neue Kamelhaalsfliege aus Kirgisistan (Neuroptera: Raphidioptera: Raphidiidae). *Z. Arb. Gem. Öst. Ent.* **50**: 65 - 71.

This new species is described from the Alai Mountains of Kyrgyzstan. Wings and genitalia of both sexes are figured.

Aspöck, U., Aspöck, H. & Yang Chi-kun, 1998 The Raphidiidae of Eastern Asia (Insecta, Neuropterida, Raphidioptera). *Mitt. Mus. Nat. kd. Berl., Dtsch. entomol. Z.* **45**: 115 - 128.

Nine species are recorded. The male of *Mongoloraphidia pudica*, both sexes of *M. xiyue* and *M. choui* and the female of *M. caelebs* are described and illustrated. The systematic positions of *M. pudica* and *M. xiyue* are clarified. China in particular remains largely unexplored for snakeflies.

Canard, M., 1998 Life history strategies of green lacewings in temperate climates: a review (Neuroptera, Chrysopidae). *Acta Zoologica Fennica* **209**: 65 - 74.

The various studies of the last thirty years are reviewed. There is a high diversity in life history strategies. The influence of arrestment of development and voltinism on efficiency of predation is discussed

Canard, M., Cloupeau, R. & Leraut, P., 1998 Les Chrysopes du genre *Nineta* Navás, 1912, en France (Neuroptera, Chrysopidae). *Bulletin de la Société entomologique de France* **103**: 327 - 336.

The five species of *Nineta* present in France are reviewed. Examination of genitalia shows clearly that subspecies *principiae* Monserrat, 1980 of *N. guadarrensis* (Pictet, 1865) is a valid species. Identification keys are given for adults and larvae of all the European species and drawings of male genitalia are presented. An important work of reference; the keys are especially useful for those like me whose knowledge of German is too poor to make full use of the keys in Aspöck *et al* (1980). In French.

Dobosz, R., 1998 *Wesmaelius malladai* (Navas, 1925) a species of Hemerobiidae new to the fauna of Poland, and the updated list of Neuroptera of the Karkonosze National Park. *Annals of the Upper Silesian Museum (Entomology)* **8-9**: 193 - 198.

An updated list of lacewings recorded at light from 1991 and 1992, comprising 21 species of which 17 are new to

West Sudety Mountains and *W. malladai* is new to Poland.

Dobosz, R. & Hadas, T. B., 1999 *Bittacus italicus* (O. F. Müller, 1766) (Mecoptera: Bittacidae) w Polsce in na Ukrainie. *Wiad. entomol.* **17**: 145 - 150.

Bittacus italicus in Poland and Ukraine with comments on the two *Bittacus* species in central Europe. In Polish, with English summary.

Dodds, C. & McEwen, P., 1998 Electroantennogram responses of green lacewings (*Chrysoperla carnea*) to plant volatiles: Preliminary results. *Acta Zoologica Fennica* **209**: 99 - 102.

C. carnea responds to a range of plant volatiles and the response varies with sex and age of the insect.

Ely, Bill, 1998. Report of *Wesmaelius mortoni*'s extinction exaggerated. *Entomologist's Record and Journal of Variation* **110**:295.

The rediscovery of this species in Scotland after 100 years without any British Isles records is formally recorded.

Harrison, S. J. & McEwen, P. K., 1998 Acid hydrolysed L-tryptophan and its role in the attraction of the green lacewing *Chrysoperla carnea* (Stephens) (Neuropt., Chrysopidae). *Journal of Applied Entomology* **122**: 3343 - 344.

Previously it was thought that acid hydrolysis of L-tryptophan in hydrochloric acid breaks the amino acid down into various compounds that are attractive to lacewings. This paper demonstrates that new explanations for the attractivity are needed.

Letardi, A., 1998 Neuroterfauna del Parco Nazionale del Cilento e Vallo di Diano (Insecta Neuropterida). *Supplement to Atti dell'Accademia Nazionale di Entomologia Rendiconti.* **46**:11

A summary of a presentation to the 18th National Congress of Italian Entomology in 1998.

Letardi, A., 1998 *Bittacus hageni* Brauer, 1860 in Veneto (Insecta Mecoptera Bittacidae). *Bolettino del Museo Civico di Storia Naturale di Venezia* **48**: 125 - 126.

Bittacus hageni is recorded for the first time from the Venice region and is only the second record for Italy. In Italian.

Letardi, A., 1998 Present knowledge of Italian Neuropterida: history, distribution and current problems. *Acta Zoologica Fennica* **209**: 145 - 149.

Fourteen families of Neuropterida, including 185 recorded species and subspecies in 69 genera, occur in Italy. A review of the history of faunistical studies, an overview of territorial distribution and notes on current problems are presented. In English.

McEwen, P. K., 1998 Overwintering chambers for the common green lacewing (*Chrysoperla carnea*): Influence of chemical attractant. Material and size. *Journal of Neuropterology* **1**: 17 - 21.

The true *Chrysoperla carnea* can be induced to overwinter in artificial chambers; wood is better than plastic. Surface area, rather than volume, of the chamber influences the number of individuals using it.

McEwen, P. & Oswald, J., 1998 Neuroptera on the Internet. *Acta Zoologica Fennica* **209**: 151 - 152.

Reviews Neuroptera-related Internet activities and inform readers how to access them.

McEwen, P. & Senior, L., 1998 The use of common green lacewings in environmentally friendly pest control. *Agriculture and Equipment International* **50** (5): 132 - 134.

A general non-technical summary

McEwen, P., Senior, L., Shuja, A. & James, C., 1998 *Chrysoperla carnea*: a powerful tool for the biological control of insect pests. *Antenna* **22**: 14 - 16.

A non-technical summary. Interesting to see a Table listing the colloquial name of *C. carnea* in no less than 24 languages - pronouncing them is another matter!

McEwen, P. K., Shuja, A. & Senior, L., 1998 Conservation of the common green lacewing (*Chrysoperla carnea* s. l.) (Neuroptera, Chrysopidae) to control crop pests. *Acta Zoologica Fennica* **209**: 153 - 156.

Use of lacewings in biological control usually involves either inoculative or inundative techniques. This paper discusses a third approach - that of conserving naturally occurring populations including through provision of over-wintering chambers.

Mencinger, B., 1999 Prey recognition in larvae of the antlion *Euroleon nostras* (Neuroptera, Myrmeleontidae). *Acta Zoologica Fennica* **209**: 157 - 161.

Behavioural response of *E. nostras* larvae to substrate vibration from prey species was investigated. Larvae could detect prey up to 15 cms from rim of their pit without seeing it and could detect target angle and toss sand up to 6 cms. Response to vibrations from different prey species varies.

Ohm, P. & Hölzel, H., 1999 Die Coniopterygiden-Gattung *Semidalis* Endelein auf den Mittelatlantischen Inseln (Neuropteroidea: Planipennia: Coniopterygidae). *Reichenbachia* **33**: 231 - 237.

There are four species of *Semidalis* in the mid-Atlantic islands. Three closely allied species inhabit laurel forest and are endemic. This group includes *S. grancanariensis* described here as new to science. The fourth species, *S. candida*, differs ecologically.

Senior, L. J. & McEwen, P. K., 1998 Laboratory study of *Chrysoperla carnea* (Stephens) (Neuropt., Chrysopidae) predation on *Trialeurodes vaporariorum* (Westwood) (Hom., Aleyrodidae). *Journal of Applied Entomology* **122**: 99 - 101.

Lacewing larvae were reared on the greenhouse whitefly. Whitefly of all stages were consumed but no lacewings survived to pupation. First instar lacewing larvae fed on whitefly eggs survived the longest. First instar lacewing larvae fed on whitefly eggs plus an artificial supplement fared little better. Although the lacewings may not survive to produce a stable population in a greenhouse inundative releases of larvae may still be an effective supplementary control method.

Senior, L. J., McEwen, P. K. & Kidd, N. A. C., 1998 Effects of the chitin synthesis inhibitor triflumuron on the green lacewing *Chrysoperla carnea* (Stephens)

(Neuroptera, Chrysopidae): influence on adult potentialities and offspring. *Acta Zoologica Fennica* **209**: 227 - 231.

Triflumuron applied topically at 10 μ g, 1 μ g and 0.1 μ g did not affect fecundity or longevity of adult lacewings but egg viability was negatively affected. At the lowest dose the hatch was 17.5% compared to 67% for the control. Subsequent larval development was also negatively affected with only 7% survival at the lowest dose compared to 47.5% for the control.

Shuja, A., Senior, L. J., McEwen, P. K. & Lanfley, P. A., 1998 Effects of the chitin synthesis inhibitor triflumuron on the green lacewing *Chrysoperla carnea* (Stephens) (Neuroptera, Chrysopidae): influence of residence time. *Acta Zoologica Fennica* **209**: 239 - 242.

Larvae and adults were subjected to two dose levels of triflumuron for different time periods. Significant effects of treatment were observed.

Whittington, A. E., 1998. *Symphorobius klapaleki* Zeleny (Neuroptera: Hemerobiidae) new to Britain. *Entomologist's Record and Journal of Variation* **110**: 288--289.

S. klapaleki has been found in Berkshire. A key is provided to aid identification.

Spermatophores in the genus *Nothochrysa*

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In the last issue of *Neuro News*, Harry Eales described a peculiar growth on the dorsal surface of the abdomen in *Nothochrysa capitata* (F.), and asked for ideas on what it might be. I predict that all the specimens bearing these growths were females!

The structure is a product of copulation, and in most references is called a spermatophore, although its homology with internally produced spermatophores is perhaps open to question. In most Neuroptera, as in many other groups of insects, the sperm are enclosed in a gelatinous sac-like spermatophore, having thick proteinaceous walls, which is generated inside the female bursa copulatrix by secretions from the male's accessory glands during mating. After copulation the spermatophore gradually breaks down, and it has often been suggested that it may act as an important source of nutrition for the female. In the Megaloptera, and in some of families of Neuroptera such as the Osmylidae, Sisyridae and Berothidae, the spermatophore is left partly protruding from the female's genital opening, and in these cases she usually devours it after mating. In some groups the male stays close to the female for some time after mating, apparently to stop her from eating the spermatophore until the sperm have had a chance to migrate into her genital duct! At the same time, such "mate-guarding" prevents other males from getting to the female, and the large spermatophore itself also prevents subsequent matings (Henry, 1997).

The white structure attached to the abdomen in *Nothochrysa* was described by Withycombe (1925) who suggested that it represented "excess" spermatophore material, deliberately placed on the female's back to deter other males, a phenomenon that had already been reported in some Lepidoptera. Killington (1936) merely repeated

Withycombe's notes, and the next original observations were made by Toschi (1965) on the American species *Nothochrysa californica* Banks. In this species the external secretions are attached to the sides of segments 4 to 7 of the female abdomen, whereas in *N. capitata* they usually seem to be placed on the dorsum of segments 6 to 7 (Withycombe, 1925; Tjeder, 1966). In both cases, the structures are not eaten by the females (even though external parts of the spermatophore protruding from the genital opening usually are) as is evident from the number of females one finds bearing this "brand" on their back. Its function would therefore seem to be mainly that of deterring other potential mates, and current evidence suggests that it is confined to the genus *Nothochrysa*.

The whole question of reproductive strategies in insects is fascinating and highly complex and, for those wanting to examine the subject in more detail, a good recent review is given by Choe & Crespi (1997).

References

Choe, J.C. & Crespi, B.J. [eds] 1997. *The evolution of mating systems in insects and arachnids*. Cambridge University Press.

Henry, C.S. 1997. Modern mating systems in archaic Holometabola: sexuality in neuropterid insects. In: Choe, J.C. & Crespi, B.J. [eds]. *The evolution of mating systems in insects and arachnids*. Cambridge University Press, pp. 193-210.

Killington, F.J. 1936. *A monograph of the British Neuroptera*. Ray Society, London. Vol.1.

Tjeder, B. 1966. Neuroptera-Planipennia 5. Family Chrysopidae. *South African Animal Life* **12**: 228-534.

Toschi, C.A. 1965. The taxonomy, life histories, and mating behavior of the green lacewings of Strawberry Canyon (Neuroptera: Chrysopidae). *Hilgardia* **36**: 391-431.

Withycombe, C.L. 1927. Some aspects of the biology and morphology of the Neuroptera, with special reference to the immature stages and their possible phylogenetic significance. *Transactions of the Entomological Society of London* **1924**: 303-411.

Euroleon nostras finally arrives on Guernsey

Rich Austin
Entomology Section Secretary
La Societe Guernesaise, Channel Islands

I was pleased to see that Charles David has been making the news in the recent *Neuro News* especially with *E. nostras*. On 3rd August 1997 I was out with the generator and MV lamp at Petit Bot on the south coast of Guernsey and an adult *E. nostras* came into the light. At the time the wind was approximately Beaufort force 4 from the south-east and it is my belief that the insect was wind assisted from Jersey or the French coast. This species has been resident in Jersey for many years but this was the first record for Guernsey.

It would seem that there was quite an invasion as Charles David has now found larval pits in several suitable locations and is unlikely to have missed this species in previous years if it had been present.

Lacewing Farms

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Insect Investigations Ltd has linked up with Agralan to produce a lacewing farm suitable for use by the gardener or grower. The Agralan lacewing farm comprises 30 adult lacewings in a container and enough food and water to maintain them for about 3 weeks. During this time the farm will produce approximately 2000 eggs which can be harvested (twice a week) without the need to open the farm.

After about 3 weeks the farm is likely to still be producing eggs but at a lowered rate. Close the farm down, give it a good wash, and buy a refill pack from Agralan to reactivate it.

Lacewing farms cost £39.99 from Agralan Garden Products Ltd, tel 01285 860015, fax 01285 860056. Refill packs cost £24.99.

Carnea or not carnea - that is the question!

OK - I will try to keep this as simple as possible!!! Most readers will be aware that the insect that we have, for years, been calling *Chrysoperla carnea* is not really that species at all, but a mixture of several which have only recently been recognised as separate. In Britain we seem to have at least two of these segregate species, *C. lucasina* and *C. 'kolthoffi'* but it remains debatable whether or not we actually have *C. carnea* itself (the inverted commas around the name *kolthoffi* are deliberate — this name is already in use for a different East Palaearctic species and so a new name will need to be found when the nature of the species is finally resolved).

Recognition of *C. lucasina* is usually relatively easy in live or alcohol preserved specimens when the brown stripe on the side of the abdomen can be seen (refer to my key in the AIDGAP series). However, it is rarely possible to be so certain about pinned specimens, and if the insect in question is not certainly a *lucasina* then deciding what it is can be more of a problem. If it has dark hairs on the under-surface of the end of the abdomen and no brown abdominal stripe, then it belongs to '*kolthoffi*'. But, I am told, it is possible for *lucasina* to exist without the brown stripe! Beyond this, there are several examples of specimens without the brown stripe in which all the ventral abdominal hairs are pale; I have been calling these the true *carnea* but Steve Brooks, amongst others, has suggested to me that this is incorrect and that we do not have *carnea* sensu stricto in Britain. Confused? So are we all.

This problem is best summed up in the following (edited) words of Charlie Henry

“The problem is basically that the members of the *C. carnea* group) are cryptic species, and therefore hard to distinguish from one another. Thus, in attempting to

separate them there has been much attention given to multiple features considered together, including diapause characteristics and colour, claw shape and basal dilation (a feature itself made up of multiple components), markings on the stipites, darkness and length of abdominal and wing setae, shape of the abdominal lip, etc. etc. However, unambiguous diagnosis of different species within the complex is rendered even more difficult by degree of melanisation, which itself is often associated (correlated) with maturity (teneral versus non-teneral adults), geographic location, and diapause state. Courtship songs seem to provide a way to identify the cryptic species with more certainty, because experiments indicate that the insects use such signals to tell each other apart before mating.”

The upshot of all this is that we do not really know how many species in the *carnea* complex we have in Britain (if we believe them all to be separate species, though Steve Brooks has discerned some minute differences in genitalia shape and several workers have established the presence of several song-types on the basis of the vibrations produced by males rubbing their abdomens on the substrate during courtship).

To cut a very long story short before I confuse everyone even more, it is now considered desirable to retain all specimens of “*Chrysoperla carnea*” for later examination. Such specimens should be preserved in alcohol rather than being pinned. All the *carnea* from a single collection should be stored together in the same tube regardless of whether or not they all possess the same characters - this will enable us to establish which taxa occur together. Full data on the collections made, including habitat and micro-habitat descriptions, should accompany the specimens please. It is especially important that any specimens with all the ventral abdominal hairs pale should be preserved in this manner.

I would like to see all of these please (British Isles only), at the editorial address on page 1. Since I would hope to receive hundreds of tubes from all over Britain then, I would suggest that unless you have a specific reason to get the specimens back again they be incorporated into my own collection, which will eventually be deposited at the National Museums of Merseyside (Liverpool Museum). Apart from the postage I might otherwise incur in returning tubes, I expect that it will take several years to work through all the material, much of which will need to be seen by workers in other countries. If you **do** want your specimens returning, please say so and include the return postage !

Meanwhile, as far as British Isles recording cards are concerned, I can accept records of 232 *C. lucasina* only if the brown stripe has been seen (please annotate the comments box on the back of the card to say this is so), but otherwise all records should be entered as 203 *C. carnea* agg. for the time being. When specimens are sent to me with the card, please circle the “museum” option in the source section of the card. It will be interesting to discover if there are any distribution differences between the segregate species.

Field records (i.e., no voucher specimen retained) can not be accepted in any other category than 203 *C. carnea* agg.

Next issue

About Christmas 1999. Please let me have all contributions by the end of November if possible. I look forward to hearing from you.