

Lacewing News



NEWSLETTER OF THE INTERNATIONAL ASSOCIATION OF NEUROPTEROLOGY

No. 15

Presentation

Hi all! Here's the 15th issue of *Lacewing News*. Leitmotiv of this issue is "funny neuropterology": so, a lot of photos, drawings and photomontages! I hope you will enjoy them, Thank to all colleagues you send photos, messages and contributions. Please, don't forget this is not a "formal" gazette, nor an official instruments of IAN, but only a "open space" to disseminate information, cues, jokes through the neuropterological community. So don't hesitate to send me any suggestions,

ideas, proposal, information, for the next issue! Please send all communications concerning *Lacewing News* to <u>agostino.letardi@enea.it</u> (Agostino Letardi). Questions about the International Association of Neuropterology may be addressed to our current president, Dr. Michael Ohl (<u>Michael.Ohl@mfn-berlin.de</u>), who is also the organizer of next XII International Symposium on Neuropterology (Berlin 2014). Ciao!



Autumn 2012

Funny Neuropterology, from John D. Oswald

Lacewing makes millinery fashion statement!



What's green, has long 'feelers', and is worn on your head? Why, it's a lacewing hat, of course! Jonica Foss, a Councillor with the Western Australian Insect Study Society (WAISS), was spotted in 2009 sporting the hand-made head gear here at the society's 20th anniversary bash

in Perth. The visage of the obviously-memorable topper was resurrected in 2012 to make a bold statement in a short bio about Jonica in a recent WAISS newsletter, where it came to this reporter's attention by sheer accident. Imaginatively modelled after a local chrysopid (or, it being Australia, we might hope a green nymphid ...), the head covering came complete with veined wings (uh, Jonica, where's the pseudocubitus ...), prominent roundy eyes (the thing that looks like a large lemon tart ...), and long sensory antennae (duck for overhead lights and ceiling fans ...). With the accuracy judge cringing in the corner and withholds points, the style judge awards top scores for originality and execution (note that wing margin with applied lace ..., and the matching green outfit ...)! Where can we get one? (probably have to make our own, but now we know how ...)

Summer Field Neuropterological trips and social meetings

From Vesna Klokočovnik Field work in Albania 2012



N.d.E. from the right, Dusan & Vesna

After amazing experience of visiting Macedonia in June last year, we decided to take another filed trip, this year in Albania. We went on 16th of July, when it was so hot, even animals took a rest in the summer heat in the afternoon. But we did not, and this is the reason we were so successful in collecting neuropterans. We stayed in the hotel Castle Park in the city of Berat, which was inscribed on the UNESCO World Heritage List in 2008.

From there we travelled to surrounding places. We collected interesting species of antlions,



among them *Cueta lineosa* (Rambur, 1842), as well as other exotic neuropteran species such as *Dilar turcicus* (Hagen, 1858), *Isoscelipteron fulvum* Costa, 1855 and green lacewing *Suarius nanus* (McLachlan, 1893).



A couple of antlions

Here are some of the glimpses in the amazing Albania.



Deleproctophylla australis

From other neuropterologists...



Matthieu Giacomino Juillet 2011 in Mayenne (FRA)



W. Weissmair & P. Duelli collecting spongeflies at Tessin



P. Duelli collecting spongeflies in Italy



Schwanberg (Bavaria), 27-29 April 2012. F.I.t.r.: Daniela and Michael Ohl, Horst Aspöck. (Photo archive H. & U. Aspöck)



12th Meeting of the German speaking Neuropterologists, Schwanberg (Bavaria), 27-29 April 2012.



Roberto Pantaleoni in the private institute of H. & U. Aspöck, Vienna, 10 July 2012.



Roberto and Paola Pantaleoni and Horst Aspöck in front of the Natural History Museum Vienna, 11 July 2012.

From Michael S. Engel & Shaun Winterton



The University of Kansas is seeking a new doctoral student to work on a phylogenetic reclassification of the world genera of green lacewings (Family Chrysopidae), both living and fossil. The work at Kansas will be entirely morphology-based but we will be working intimately and publishing with collaborators in California working on DNA sequencing and bioinformatics of Neuroptera. Anticipated products of the project include an interactive key to world green lacewing genera, a genus level monograph of the family, phylogeny and divergence time estimation and an ontology of Neuroptera. Preference will be given to students with a Masters degree in systematics, ideally of Neuropterida (lacewings and relatives), and who have some phylogenetic experience. Successful applicants will be expected to undertake some domestic and international travel (conference attendance and field work). Any interested individuals should contact us immediately to discuss possibilities (msengel@ku.edu). Evaluation of possible candidates will begin in the Autumn. The appointment is funded by a new grant from the US National Science Foundation (funds beginning in January 2013) and provides three years of Graduate Research Assistant support. The final two years of support will be from a mixture of curatorial and teaching assistantships through the University of Kansas, or other funding sources. The successful student will be a doctoral aspirant in the Department of Ecology & Evolutionary Biology. Information on the Department and how to apply can be found at:

http://www2.ku.edu/~eeb/graduate/apply.shtml

He will work with Michael Engel and Shaun Winterton, and be located in Michael's lab in Kansas.

From Horst and Ulrike Aspöck



Neuropterida in good company The transcriptomes – a fantastic tool to unravel the secrets of the evolutionary history of insects

The 1KITE (1K Insect Transcriptome Evolution) project will unravel the secrets of the evolutionary history of insects using a molecular data set of unparalleled dimensions and quality. Started in September 2011, the transcriptomes of 1,000 insect species have been investigated. BGI, China - the world's largest genomic sequencing centre - has invested initiating funds to enable this international project and has made its extensive sequencing infrastructure available to achieve this goal within the next two years. A "transcriptome" includes the sequences of all the sets of genes that are being "translated " into proteins in a particular organism at the time it was collected. It represents a major and important part of the complete genome, since these mRNAs are involved in the life processes of the organism. Analyses of the transcriptome data will allow the reconstruction of a robust phylogenetic tree of insects. Furthermore, the project includes the development of new and advanced approaches analyzing enormous ("phylogenomic") data sets, which are generated by new laboratory techniques at an everincreasing rate. Bernhard Misof, Head of the department of Molecular Biodiversity Research at the Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany, is one of the initiators of this research program, along with Karl Kjer from Rutgers University, and Xin Zhou from BGI. The 1KITE has brought together around 50 internationally renowned experts in

molecular biology, morphology, palaeontology, embryology, bioinformatics, and scientific computing in an unprecedented way. Overall, scientists from seven nations (Australia, Austria, China, Germany, Japan, Mexico, and the US) are collaborating in the 1KITE project. Besides several other subprojects there is also one on Neuropterida with 14 collaborators, among them both of us, Xingyue Liu and Ding Yang. A pioneer project, basing on the transcriptomes of 100 taxa, with the title "The phylogeny of the holometabolous insect orders inferred from transcriptomic, genomic, and morphological data" was recently presented at the XXIV. International Congress of Entomology in Daegu, Korea by Ralph S. Peters, Karen Meusemann, Oliver Niehus, Gerrit Hartig, Ulrike Aspöck, Horst Aspöck, Sonja Grath, Hans Pohl, Frank Hünefeld, Frank Friedrich, Malte Petersen, Alexander Donath, Carina Eisenhardt, Jana Hertel, Veiko Krauss, Jörg Lehmann, Christoph Mayer, Hakim Tafer, Peter F. Stadler, Erich Bornberg-Bauer, Karl M. Kjer, Ruichiro Machida, Duane D. McKenna, Rolf G. Beutel, Bernhard Misof.



As concerns the Neuropterida, two of our main hypotheses have been corroborated: the monophyly of the Megaloptera (Corydalidae + Sialidae) and Raphidioptera being the sister group of Megaloptera + Neuroptera. We, the Aspöcks, have been collecting eagerly during the recent neuropterological seasons to get fresh specimens, which were identified, mashed in RNAlater (a special salt solution for preserving RNA) and then sent to China via Bonn. Not all families have been available for us so far. So we asked for help and indeed Alexi Popov provided Dilaridae and Nemopteridae, Ding Johnson Polystoechothidae and Nearctic Raphidiidae, David Faulkner is still trying to get Ithonidae. A lot of grateful thanks to our friends! However, for the huge 1KITE project representatives of several families of Neuroptera are still urgently needed:

Berothidae, Rhachiberothidae, Psychopsidae and Nymphidae.

So, our big request to the neuropterological community is: *Who could help us to get representatives of these groups?* If you want to get in touch with us in this matter, please, give us a sign, you will then be provided with RNAlater and instructions.

Target number one has been the clarification of the sister group relationships of the families, but further challenges will be the relationships of the genera and species. Thus, we continue collecting specimens of all species – and store them, their time will come, when the analyses will become much cheaper and our queries more sophisticated.

Thank you in advance, Horst and Ulrike Aspöck

From Axel Gruppe Freising (Germany) gruppe@wzw.tum.de

Report on the 12th meeting of the study group "Neuropteren" of the German Society for General and Applied Entomology (DGaaE) at Schwanberg castel near Würzburg, Germany



The 12th meeting of the study group 'Neuropteren' was held at the end of April in 2012. Thirteen neuropterologists from Germany, Austria and Swizzerland participated in the congress and presented 9 lectures. The subjects of oral presentations covered systematics, biogeography, faunistics, biocontrol and aspects of nature conservation. Abstracts of presentations (in German language) are avialable for downloaded on the website of DGaaE (<u>http://www.dgaae.de</u>) in most cases.



Schwanberg (Bavaria), 27-29 April 2012. F.I.t.r. Johannes Gepp, Peter Duelli, Melitta Fuchs, Axel Gruppe, Florian Weihrauch, Joachim Milbradt, Ulrike Aspöck, Werner Weißmair. (Photo archive H. & U. Aspöck)

In addition, three round-table discussions dealed with Neuroptera as a tool for bio-control (including discussion on suitability of other species than *Chrysoperla carnea*), nomenclature of *Chrysoperla carnea*-group, and measures to optimize habitat structure in dune landscapes in southern Bavaria to propagate *Myrmeleon bore* populations.



Schwanberg (Bavaria), 27-29 April 2012. F.I.t.r.: Peter Duelli, Werner Weißmair, Florian Weihrauch, Johannes Gepp, Axel Gruppe, Ulrike Aspöck, Joachim Milbradt. (Photo archive H. & U. Aspöck)

The next meeting of the study group will be held

in summer 2013.

From David Penney

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New book on Fossil Neuropterida?

My research background is in the study of fossil spiders, primarily in amber, but as a result of examining many different fossils and running a publishing company specializing in (palaeo)entomology I have started to venture more into the realm of insects. I find the Neuropterida particularly appealing, maybe as a result of their extremely diverse fossil record, but possibly also as a result of my palaeoentomologist colleague at Manchester, James Jepson who specializes in this group. Indeed, in 2010 we co-authored the description of a new species of Hemerobiidae in Baltic amber. Also, I was fortunate enough to meet some very pleasant Neuropterologists in Berlin in March 2011 including Horst & Ulrike Aspöck, Michael Ohl and John Oswald.



Sympherobius siriae holotype (Baltic amber)

I was very interested to note that a fossil theme recurred in various contributions to the last newsletter and my suspicion is that a volume dedicated to recent advances in the palaeontology of this group would be a welcome contribution to the literature. Siri Scientific Press (note the similarity with the epithet of the species figured above; indeed the logo of SSP includes the wing venation of this species!) is a publisher specializing in (palaeo)entomology (http://www.siriscientificpress.co.uk). Works include academic monographs, edited volumes, field guides and titles of a more general nature, and titles on specialist subjects that would be overlooked by larger publishers as not profitable enough. Print on demand publishing is not used, volumes receive excellent reviews in academic and specialist journals/newsletters, and are taken by major academic libraries worldwide.

As an academic myself I understand the limited time available for activities such as book writing/editing, but I would be very happy to hear from anybody who would like to pick up the Fossil Neuropterida gauntlet.

Best regards, Dave Penney

Who is Who in Neuropterology

Michel Canard



When Agostino offered me to enter the "Whos's who" file some weeks ago, he asked to a "senator" following his own terminology. This epithet in my mind containing both wisdom and care of traditional worth. I prefer to be labelled "dinosaur" because this term is mainly characterized by a strong seniority import. Yes, I am a dinosaur of the IAN neuropterologist community following the late AsMoNe, Association Mondiale des Névroptéristes, and I take upon myself such a position without any complex.

I was born in 1932 in the center of France, at le Puy-en-Velay, a year during which the Europe

notwithstanding takes options which were later dramatic and lasted up to and after my adolescence. I was the second of a four children family with 3 daughters. My parents were both chemist-engineers, the father working as tanner artisan, the mother as family home keeper. My first contact with insects as many young boys do was running at spring after early on-wing butterflies: the orange tip male and the common brimstone.

When 15 yo, at time that boys play football or other virile games and began to run after girls, a vertebral epiphysite immobilized me almost on year and condemned me to horizontal stay, sunbathings and UV box. This setting apart orientated definitively my bodily natural dispositions to efforts constant rather than hard and to self control sports. So I carried out later cycloturism, mountain outing, canyonning and paragliding in which I always found both a good physical fitness and great pleasure.



My studies in primary and high schools were performed without any special passion up to the baccalauréat in 1950. It is after only that the turning to naturalist way happened. Two years of entrance examination preparation were followed by three years in the École Nationale Supérieure Agronomique of Toulouse. It this city, I found both sweet meridional climate and the thought tolerance which is a basic quality of the southwestern France currently named by the natives Occitanie. My cursus moved during the terminal phasis in the engineer school to plant protection specialization so that after this step, entomology enters my life for ever. But my graduation continued by an Ingénieur-Docteur memory that initiated me to research. I worked thus in Coccidology, namely on the bioecological study of the European fruit lecanium scale insect

Eulecanium corni Bouché.

As then everybody does, I left in 1958 my job to be a boy in the compulsory conscription army. After finishing this tedious and long task, I joined the Centre National de la Recherche Scientifique I then (CNRS) as searcher. run the Mediterranean landscape to discover and attempt to elucidate ecobiological secrets of underground cottony scales belonging to the little known genus Rhizopulvinaria. Nevertheless, their scarcity of thèse root coccids and the hard difficulty to rear them easily conducted me to modify a too difficult research orientation. It is under the scientific authority of the Inspecteur Général Emile BILIOTTI from the Institut National de la Recherche Agronomique (INRA) that I discovered by chance the Neuroptera. At this time, INRA needed people in applied zoology/biological control to work on underground staphylinids and carabids, on predatory cecidomyiids and on neuropterans. I chose unhesitatingly the chrysopids because they are much more beautiful than the other bugs!



And I have held fast to this (good) choice . It is only much more later (1973) that I present a PhD Memory on Chrysopidae under the responsibility of Ivo HODEK, chairman of the Aphidophaga Group of the International Organisation for Biological and Integrated Control of Noxious Animals and Plants (West-Palaearctic Regional Section).

During more than 25 years, I studied several aspects of the biology of various green lacewings. In a first step, I looked into the feeding and the biotic potential it induced, then various strategies of voltinism, cycle regulation in temperate climates submitted to photoperiods and cold hardiness. When missing lab experiment working resources, i.e. during the break in Greece (see below) and after my retirement, faunistics and cartography became the aim of my occupations. From all these works, I wrote 124 scientific publications, more often in collaboration with colleagues (77) than alone. As demonstrated in the discussions of the First International Symposium on Neuropterology held in Graz, Austria, 1980, the need for an account of the whole Chrysopidae family was completed in 1984: in collaboration with Yves SÉMÉRIA and Tim NEW we edited the Biology of Chrysopidae in the Dutch Dr Junk's Entomological Series in an harmonoius, sometimes frantic, collaboration. This book introduced various aspects of the applied characters of the bioecology of the green lacewings hitherto little tackled in question.

A break of two years (1975-77) was a going back to my primary formation, namely an agronomic activity. As field expert in the UNDP-FAO (United Nation Development Programme-Food and Agricultural Organisation) programme intitled "Control of Olive Pests and Deseases in Continental Greece, Crete and Corfu", participated in the building up of soft methods to monitor the olive fruit fly Dacus oleae Gmelin, the black scale Saissetia oleae Olivier and the olive moth Prays oleae Bernard. I keep of such a working trip a nice thought, as well of the greek and international staff of colleagues as of the efficiency of the organization and the contents of results.

As teacher in the *Université Paul-Sabatier* of Toulouse, I monitored several memories (Eng.-Dr and PhD) of which nine were devoted to Chrysopidae and Hemerobiidae. Only three of them continued research on Neuroptera and are now members of our IAN community, namely Dominique THIERRY and Cesar CARVALHO, and less intensively, Johanna VILLENAVE. In 1991, it was my turn to organize the cyclic (4th) symposium of Neuropterology. My personal preference to quietude, natural site and my dislike for bling-bling attitude have guided the choice for venue to a small spa in the central *Pyrenées* mountains, at *Bagnères-de-Luchon*. I hope that those which participated in keep a good remember of this meeting which saw clearly the arrival of applied topics in our neuropterological objects (see enclosed info in previous issue of Lacewing News). The publication of the proceedings was the result of a good cooperation with Horst ASPÖCK and Mervyn MANSELL who also participated in the proceedings' issue of the fifth symposium (Cairo, 1994).

With best regards from a dinosaur to everybody!



Who is Who in Neuropterology in short

Xinli Wang [1957-] f



Professor & Curator Department of Entomology China Agricultural University Yuanmingyuan West Rord 100193, Beijing CHINA Contact Information: Phone (work): +86-010-62733776 Email (work): wangxl@cau.edu.cn Interests: Taxonomy and phylogenetics of Neuroptera **Biogeography and Geometric morphometrics** Research Emphases: Taxonomy and phylogenetics of Myrmeleontoidea Current project: Chinese Fauna of Myrmeleontoidea

Nouvelles frontières

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I first got in touch with neuropterans when I met and got to know an enthusiastic neuropteran researcher Prof. Dr. Dušan Devetak. That was after I finished my diploma and started to work on my PhD. His stories evoke my interest in this group of animals. At that time though my main research field was and it still is, as I am working on my PhD, insect fauna under the bark of the Norway spruce associated with spruce bark beetle Ips typographus. Main focus of my doctoral thesis are saproxylic beetles, predatory beetles that prey on bark beetles, predatory Diptera and parasitoid complex associated with Ips typographus consisting mainly of two hymenopteran families, Pteromalidae and Braconidae.



In 2011, when I started to work as a teaching assistant in the field of zoology at the Faculty of Natural Sciences and Mathematics in Maribor, I started to do some faunistic work on neuropterans and began to learn more about these interesting animals by observing the work of my colleagues.



In year 2012 I joined my colleagues on the neuropteran expedition in Albania. For ten days we collected exotic neuropterans in different locations and very much enjoyed our field trip adventures in this beautiful Balkan country. In the near future we plan to do some research on physiology of antlion vibrational communication.



Neuropterological fantasy

Recent Literature on the Neuropterida (2012) Organized by Agostino Letardi

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Neuropterology's best friend

Acmaeodera (nickname of Ilja Trojan on Forum Entomologi Italiani) in his private home http://www.entomologiitaliani.net/public/forum/phpBB3/viewtopic.php?f=115&t=11635&start=15

How to make an origami dobsonfly... does anyone have the instructions?



ADD - Company -

Photos and drawing from http://www.flickr.com

Fantastic bestiary

Purple owlfly - Lisa R., 2011



Drawing by courtesy of Roberto Lisa, (Florence, Italy)

Pictures of the semester



Mantispa aphavexelthe (Aspöck U. & Aspöck H., 1994), Neuroptera Mantispidae <u>http://www.galerie-insecte.org/galerie/view.php?adr=.%2Fimage%2Fdos87%2Ftemp%2Fimg_0898.jpg</u>



Lacewing's eyes http://www.flickr.com/photos/zeissmicro/7407426562/sizes/o/in/photostream/

http://www.flickr.com/photos/alhabshi/7924992086/

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: Lacewing News - Newsletter of the International Association of Neuropterology

Jahr/Year: 2012

Band/Volume: 15

Autor(en)/Author(s): diverse

Artikel/Article: Lacewing News 15 1