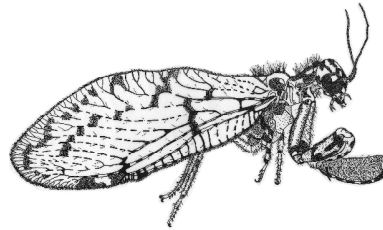


Lacewing News



NEWSLETTER OF THE INTERNATIONAL ASSOCIATION OF NEUROPTEROLOGY

No. 29

Autumn 2019

Presentation

Greetings once again to everyone. Here we go with our second issue of 2019! As always, thanks to all enthusiast neuropterologists who kindly sent contributions, notes, and bibliographic references. Please send all communications concerning Lacewing News to agostino.letardi@enea.it (Agostino Letardi, photo on the left). Questions about the International Association of Neuropterology may be addressed to our current president, Dr. Xingyue Liu (photo on the right) (xingyue_liu@yahoo.com).



From right to left, the new IAN president Xingyue Liu and the LN editor Agostino Letardi (photo Rinaldo Nicoli Aldini)

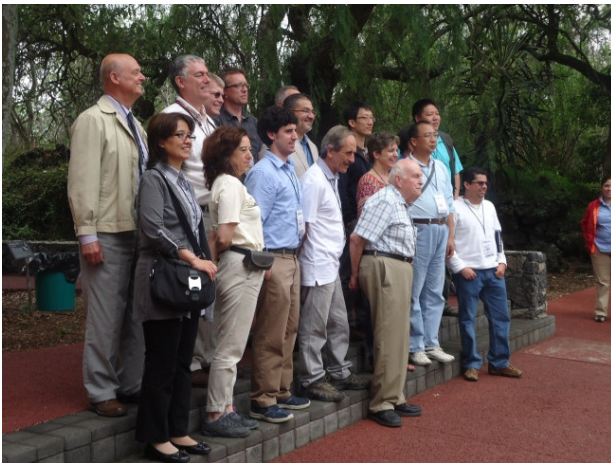
Remember our beloved Oliver S. Flint



29 July 2003. USA, Texas, College Station. Oliver S. Flint in the lecture hall at the 8th International Symposium on Neuropterology. (Photo archive H. & U. Aspöck.)

From Floyd W. Shockley
Smithsonian Institution
(photos sent by Caleb Calibre Martins)

All,
Passing along the official announcement and obituary for Ollie Flint, written in large part under the direction of Dr. Torsten Dikow, who for more than a year has served as the Curator of the Aquatic Insects after a change in museum policy and Ollie's health made it impossible for him to continue officially (though that certainly never stopped him unofficially curating the collection until only recently. It was a collaborative effort produced with input from SI & USDA staff, external collaborators, and the Flint family itself. It was just sent out to the NMNH staff this afternoon by Sant Director Kirk Johnson, but I thought I would share it with the entomological collections community as a testament to an extraordinary scientist, a true scholar and gentleman.



"It is with great sadness that I write to tell you that our dear colleague and friend Oliver "Ollie" S. Flint, Jr., Emeritus Curator of Neuropteroids in the Department of Entomology, passed away at age 87 this past Saturday, May 18th. Ollie was a passionate and energetic presence in our museum community for almost 60 years and was active in the collection until very recently. His constant smile and devotion to his work and our museum's mission will be sorely missed. Ollie grew up in Amherst, MA just down the street from renowned crane fly expert C.P. Alexander, who became his mentor in all things entomological. Ollie received Bachelor's and Master's degrees from the University of

Massachusetts before earning his Ph.D. in Entomology from Cornell University in 1960. He joined the NMNH Department of Entomology in 1961 as Curator of Neuropteroids, serving in this role for 35 years before becoming an Emeritus Curator in 1996.

During his long career in the museum, Ollie curated a number of aquatic insect orders including Trichoptera (caddisflies), Megaloptera (fishflies), Ephemeroptera (mayflies), Plecoptera (stoneflies), and Odonata (dragonflies) as well as Neuroptera (lacewings), Mecoptera (scorpionflies), and Raphidioptera (snakeflies) – a collection of more than 12,000 species and almost 400,000 specimens. Ollie was a knowledgeable and dedicated curator for these groups, with our important dragonfly collection notably becoming the best curated group within all of Entomology.

Ollie authored more than 230 papers and books on aquatic insects. This remarkable scientific output spanned almost 70 years; his first paper was in 1951 and publications are in press. The majority of his research output focused on the systematics of Neotropical caddisflies, a group for which he was a world-recognized authority. Ollie described more than 1,200 species, 21 genera, and one family of caddisflies during his career. Ralph Holzenthal (University of Minnesota) relates that his own dissertation research and those of nine of his PhD students depended almost entirely on specimens collected by Ollie. His and his wife Carol's generosity in helping students and hosting visiting researchers was unlimited.



Ollie loved fieldwork as probably only few people do, and his collecting and research resulted in

the most comprehensive and best curated caddisfly collection in the world, particularly for Neotropical species. He also collected and deposited specimens of at least 13 other insect orders throughout the world, including Antarctica, adding more than 26,000 specimens of dragonflies and damselflies to the USNM collection as well as untold thousands of caddisflies. His local field work in collaboration with retired USDA scientist David Smith involved intensive malaise trapping that resulted in numerous new state records for several insect groups. More generally, Ollie was an avid hiker and an expert on the natural history and entomology of the greater Washington, DC area. Throughout his career, Ollie held key positions and received significant honors from organizations including the Entomological Society of America, the North American Benthological Society, and the Virginia Museum of Natural History Foundation (another local organization, like ours, particularly dear to his heart). Ollie was honored for his expertise in caddisflies at the 12th International Symposium on Trichoptera in 2006 in Mexico City, as can be seen on the “greater than life size mural” hanging on the 6th floor of the East Court opposite his office. Three genera and more than 60 species from six insect orders have been named in Ollie's honor to recognize his extensive contributions to the field.



Please join me in expressing our deepest sympathies to Ollie's wife Carol, his daughters Cathy, Lisa, and Maria, and their mother Ruth. A service celebrating Ollie's life will be held at Christ Church in Alexandria, VA (118 N. Washington St., main entry at N Columbus St.

and Cameron St.) at 11 a.m. on Saturday, June 15th with a reception to follow. In lieu of flowers, the family asks to support the insect collection which Ollie so dearly loved. Please make contributions out to the Smithsonian Institution under the "Improvement of the Insect Collection Fund - Ollie Flint." We will celebrate Ollie's life and career here at the museum as well at a time later this year."

Sincerely,

Floyd

From Horst and Ulrike Aspöck



24-25 June 1991. France, Bagnères-de-Luchon. 4th International Symposium on Neuropterology. Above. From left to right: Oliver S. Flint, Ulrike Aspöck, Carol Flint, and Horst Aspöck. Ulrike Aspöck, Peter Duelli, Carol Flint, and Oliver S. Flint. Below. Oliver S. Flint (left) and Dušan Devetak. Oliver S. Flint presenting his lecture on *Chloronia* in Costa Rica. (Photo archive H. & U. Aspöck.)

It was in Bagnères-de-Luchon in France at the 4th International Symposium on Neuropterology, 24–27 June 1991, when we met Oliver (Ollie) S. Flint for the first time. He attended the symposium together with his wife, Carol, and there was immediately a cordial atmosphere between us. We had had contacts and exchange of reprints (= the ancestors of pdf files), but now we could exchange information personally. Ollie was particularly interested in water-associated Neuropterida (besides Trichoptera, his main research field) and he gave a presentation on “The distribution of the genus *Chloronia* BANKS in Costa Rica (Megaloptera: Corydalidae)”. After the symposium we met Ollie at three subsequent symposia: in Helsinki (1997) (figs. 6–9), in Budapest/Csillebérc (2000) (figs. 10–13), and in College Station, Texas (2003) (figs. 14–16). He presented lectures in Helsinki



14-16 July 1997. Finland, Helsinki. 6th International Symposium on Neuropterology, 13-16 July 1997. Above. Lecture hall in a building of the Finnish Academy of Sciences: Ulrike Aspöck before her presentation, and her chairman, Oliver S. Flint. Oliver (Ollie) S. Flint (left) and Timothy (Tim) R. New. Below. From right to left: Reception at the Finnish Academy of Sciences. John Oswald, Robert Güsten, Ulrike Aspöck, Alexi Popov, Oliver S. Flint. Oliver S. Flint giving his lecture on *Climacia* species from the Neotropics. (Photo archive H. & U. Aspöck.)

on “New species and records of *Climacia* from the Neotropics (Neuroptera: Sisyridae)” and in Budapest on the “... name-bearing Neuropterida types in the collection of the Natural Museum of Natural History of the Smithsonian Institution, USA”. It was always a great pleasure to meet this highly competent entomologist and charming, polite, humorous, and highly cultivated professor of old style.



6-7 August 2000. Hungary, Budapest, Csillebérc. Above. Icebreaker at the 7th International Symposium on Neuropterology: Oliver S. Flint (left) and Agostino Letardi. From left to right: Oliver S. Flint, John D. Oswald, Mervyn W. Mansell, Timothy R. New, and Horst Aspöck. Below. Oliver S. Flint (left) and György Sziráki. From left to right: Martin Meinaner, Ollie Flint, and Agostino Letardi. (Photo archive H. & U. Aspöck.)

Oliver S. Flint discovered the family Nevrorthidae on the island of Okinawa, he recognized the species as new for science, but he generously forwarded it to us for study and description. We dedicated the species to him: *Nipponeurorthus flinti* U. ASPÖCK & H. ASPÖCK, 2008). In 2018 he co-authored C.C. MARTINS and X.-Y. LIU in a paper on Dilaridae from Asia with the description of a new species, *Dilar aspoeckorum*. We gratefully appreciated this dedication.



26-28 July 2003. USA, Texas, College Station, in John Oswald's house. Invitation on the occasion of the 8th International Symposium on Neuropterology. From left to right: Wieland Röhricht, Oliver S. Flint, Ulrike Aspöck, and György Sziráki. Oliver S. Flint in John Oswald's study at home. (Photo archive H. & U. Aspöck.)

Oliver S. Flint has left deep traces in neuropterology and trichopterology. His research will remain relevant also in future. Moreover, Ollie Flint will remain in the hearts of all colleagues and friends who have had the privilege and pleasure to see him, to listen to him, and to speak with him.

Neuropterists' speaker corner

From John D. Oswald

Invitation to Review and Comment: Taxonomic Content of the LDL Neuropterida Species of the World

Dear Colleagues,

In preparation for the release of the next version of the Lacewing Digital Library's (LDL) on-line Neuropterida Species of the World (NSW) I would like to provide the global neuropterology community with an opportunity to review, comment, and provide input on the classification and taxon listings that the NSW contains. The next version of the NSW will contain new taxa and synonymies that have been published over the last several years; and, more importantly, will

contain a major overhaul of the higher classification that is used to organize the superorder, particularly in the family-group of ranks.

The core classification and species lists that are contained in the NSW are periodically released to the global Catalogue of Life project (CoL). The CoL, in turn, serves as the taxonomic and nomenclatural backbone for the Neuropterida parts of many worldwide bioinformatics initiatives (e.g., GBIF, Encyclopedia of Life, Biodiversity Heritage Library, Barcode of Life Data System). Thus, it is important that the data contained in the NSW are as accurate and complete as possible, and that the classification used in the NSW reflects a best-current-hypothesis view of the phylogeny and biodiversity of the world's Neuropterida -- as reflected in current taxonomic and phylogenetic work.

While it is natural that multiple views of many phylogenetic and taxonomic questions will co-exist in active areas of research, there is also a practical need for a single, broad, synthetic classification that attempts to select the best-supported views from among multiple alternatives. The development of such a classification benefits from broad input and I would like to call upon the community's review to help ensure that the merits of all alternative opinions are considered in developing the new NSW classification and taxonomy.

Three programmatically-generated lists that capture the current NSW classification and taxon diversity are currently available for review (each as a separate Excel spreadsheet): (1) a classification from superorder to subtribe [ca. 200 records]; (2) a classification from superorder to subgenus [ca. 1250 records], and (3) a classification from superorder to subspecies [ca. 7800 records]. The three different spreadsheets have been developed so that potential reviewers may conveniently choose to review records only at higher-taxonomic ranks (order- and family-groups), only at intermediate ranks (genus-group), only at lower ranks (species-group), or at any combination of ranks.

Each spreadsheet contains a complete classification of the world Neuropterida (as currently organized in the NSW database) from superorder down to the lowest rank indicated for each list. Each list is sorted alphabetically within each higher taxon, so all lists can be checked conveniently for any order, family, genus,

species (or other rank), that is included in that list. All lists contain both extant and extinct neuropterid taxa. The lists contain only taxa that are "treated as valid" in the NSW database, i.e., full synonymical listings are not included (but full synonymies are available from the on-line version of the NSW).

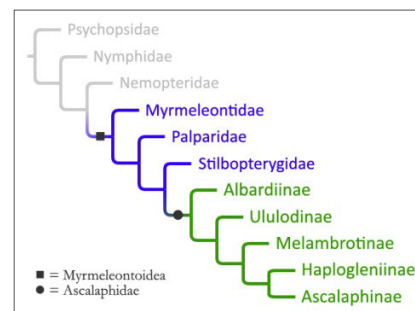
I would be happy to send copies of any or all of the three spreadsheets to anyone who may have an interest in reviewing them and sending comments on the classifications and taxon lists that they contain. While I would be grateful to receive comments on any aspect (large or small) of the NSW taxonomy, I am particularly interested in receiving feedback on the structure of superfamily-, epifamily-, and family-rank taxa into which I propose to classify the Neuropterida in the next version of the NSW. If you would like to review any or all of the three lists for your taxon of interest (or for all of the Neuropterida!), please contact me by e-mail at j-oswald@tamu.edu.

Sincerely,
John Oswald

From Joshua Jones

Dear colleagues and friends,

My long-awaited publication "Total-evidence phylogeny of the owlflies (Neuroptera, Ascalaphidae) supports a new higher-level classification" will be published in an upcoming issue of *Zoologica Scripta* (probably November). Early View is now available online: <https://onlinelibrary.wiley.com/doi/10.1111/zsc.12382>. Please note that extensive and vital content, including the newly proposed classifications, are included in the Supporting Information (link above).



In it (see figure at right), the ascalaphids were recovered as monophyletic, with

stilbopterygids placed as immediate extant sister group. Together with the palparids, these three lineages were placed as sister to the

myrmeleontids. A new classification is proposed that recognizes each of these groups at the level of family, and the entire collective as superfamily Myrmeleontoidea. A new classification is also proposed for the Ascalaphidae, and includes five subfamilies, two of which are new.

Feel free to email me with any questions or comments, or to request a PDF:
doc.jonesresearch@gmail.com

Joshua Jones

Nouvelles frontières

Dr Simarjit Kaur, M.Sc. (H.S.), PhD
Post-Doctoral Fellow,
Miscellaneous Insect Order Section,
Zoological Survey of India,
Head Quarters,
Kolkata, West Bengal, India
Email: simarjit485@gmail.com



This issue is really scant! Despite several young

and smart neuropterologists have appeared on the entomological scene, actually this newsletter received contributions from the usual, old but gold, neuropterologists (the Aspocks, the legacy of Dušan, the foreveryoung Michel Canard): how long will we wait for active presence of other neuropterologist in this newsletter? [LN 28 pag.1]

These introductory lines on recent issue was quite motivating to the neuropterologist like me who are new to this field. I did my doctorate on taxonomy and ecology of mosquitoes (Diptera: Culicidae) of Punjab state of India highlighting the impact of ecological changes on prevalence and distribution of vector species in particular. Working on Neuroptera, it happened all by chance during my appointment as Post-Doctoral Fellow at Zoological Survey of India (ZSI), Head Quarters, Kolkata, West Bengal a year back. After joining ZSI, I came to know the contributions of Dr. S.K. Ghosh on this order from India and also that after his retirement not much has been done. Currently, me and Dr. M.S. Pandher, Scientist-C; Miscellaneous Insect Order Section of ZSI, Kolkata are working on Neuroptera with main objective to update taxonomic account of Indian Neuroptera and prepare the catalogue of the same. In the last one year, we have published two major research papers on two Indian species i.e. *Parosmylus prominens* Needham, 1909 and *Distoleon sambalpurensis* Ghosh, 1984. The male of the type species *P. prominens* was described for the first time and female genitalia was also redescribed based on recent collection from type locality Kullu, Himachal Pradesh and other localities of Jammu & Kashmir, Uttarakhand. Male of *D. sambalpurensis* was also described for the first time from India along the redescription of the female. *D. subtentus* Yang, 1986 was synonymized with *D. sambalpurensis* based on morphological similarity. Very recently we have compiled the data on the only subfamily of family Mantispidae i.e. Mantispinae known from India.

Apart from this, I am well versed with use of Scanning Electron Microscope (SEM) in taxonomy to find new taxonomic attributes, already studied in different developmental stages of mosquito. Therefore, with my previous experience I have applied the same in Neuropterans also. SEM studies have been conducted on male and female genitalia of *Myrmecaelurus acerbus* (Walker, 1853); third

instar larva of *Myrmeleon* sp. highlighting the presence and distribution of different types of sensilla and their possible role in biology of the species.

During my recent conversation, Dr. John Oswald suggested me to use this platform to introduce myself to the world of Neuropterologists and participate in the future conferences/ symposia to interact with the other researchers in this field. We here in India, are trying our best to contribute more on this order and will keep updating about this from time to time. Looking forward.

Simarjit Kaur

Researches, social and scientific meetings

From Lujza Keresztes*, Anna Denes, Kinga Kelemen

* Babes-Bolyai University
Hungarian Department of Biology and Geology
Clinicilor 5-7, Cluj Napoca 400006
Romania
keresztes2012@gmail.com

Biogeography application of the Hungarian Department of Biology and Ecology, Faculty of Biology and Geology, Babes-Bolyai University, Cluj Napoca, Romania

Biogeography applications of the MSc and BSc. students of the Hungarian Department of Biology and Ecology from Romania has long tradition to investigate the most representative Balkan



The enthusiastic team from the Hungarian Department of Biology and Ecology, UBB, Cluj, Romania visiting Albanian

ecosystems, and identify endemic species that reflect evolutionary processes in one of the most important biodiversity hotspots of Europe. This year has been chosen Albania, a small country with huge potential in biogeography research. Having great expectation from this excursion by passing the famous Adamovic-line under the



The clear, deep water karstspring in Tragjas village, a place for abundant insects fauna, among them some Chrysopidae (photo L. Keresztes)

Albanian Alps in the North, an imaginary biogeography border between the humid-mountain and xero-mountain types of orobioms, a number of 49 researchers and students equipped with identification guides, magnification lens, cameras, entomological nets and endless motivation, visited Albania between 28 April and 4 May. The targeted ecosystems were the wild Adriatic-sea shore close to Vlora (the Narta Lagoon), Pasha Liman with the macchia biom near the ancient Orikum, the unforgettable Tragjas karst spring area in the western part of the country, as well as the "Dry Mountains" Mali i Thate area and surroundings of the Ochrid lake near Tushemisht in the est.



Bird-watching near the Ochrid lake, Thusemisht, Albania (photo Zs. Miholcsa)

A number of 7 working groups were established focusing on different endemic plant, fungi and animal species; between others a small group of lacewing enthusiasts formed by Lujza Keresztes and her students Anna Denes, Kinga Kelemen, Maria Henning, Csilla Nemes, Szilard Balog and Timea Demeter.



On the left, the entomology team at Mali i Thate, where the most individuals of Hemerobiidae were collected (photo Zs. Miholcsa); on the right, *Hemerobius micans* Olivier, 1793, a species from Hemerobiidae family, largely distributed in Europe, also abundant at Mali i Thate, at 1750 m altitude, 2th May, 2019, coll. L. Keresztes (photo L. Keresztes)

Having little experience, but great hope to see some spectacular Neuroptera (like some Nemopteridae) and Raphidioptera species, some individuals were collected in every ecosystem which have been visited in these 7 days, and send to dr. Agostino Letardi, for taxonomic expertise.



The Neuroptera material collected in Albania, ready to be sent to dr. Agostino Letardi for taxonomy expertise (photo L. Keresztes) [E.'s N.: material has been studied and given back to Lujza; data available on demand through private e-mail]

All we can say in the end of this application, that Albania have stolen our hearts. There are unforgettable places where people must return back, not only for nature, but also for the

colourful local traditions, tasty gastronomy and lovely hosts which we can recommend for every entomologist all over the world!



Hemerobius sp., a species from Hemerobiidae family, waiting for identification, Mali e Thate, 1750 m, 2th May, 2019, coll. L. Keresztes (photo L. Keresztes)



Raphidia sp., male, Raphidioptera from Mali i Thate, 1758 m, altitude in a dry oak forest, 2th May, 2019. coll. L. Keresztes (photo L. Keresztes) [E.'s N.: *Ornatoraphidia flavilabris* (Costa A., 1855)]

From Dušan Devetak

A pleasant visit from the UK in Maribor



Slovenia, Rače. From right to left: Stanislav Gomboc, Colin W. Plant, Dušan Devetak. Photo A. King.

In July 2019 our colleague Colin W. Plant, well-known as author of Provisional atlas of the lacewings and allied insects of Britain and Ireland, spent two days in the surrounding of Maribor. Despite of the fact that his focus is

mainly moths, most neuropterologists of my generation (and older ones) know him very well. He is an author of some basic publications dealing with the Neuropterida of the United Kingdom, and for many years, Colin was very successful as the editor of a precursor of Lacewing News, namely 'NEURO NEWS – The Newsletter of the British Isles Neuropterida Recording Scheme'.



Slovenia, the Rače ponds. Andy King and Colin W. Plant. In the background is light-trap. Photo D. Devetak.

Until his visit, I knew Colin only from the correspondence, which started almost three decades ago. For both of us, it was a great opportunity to meet each other for the first time, after so many years since our first contact. After a few weeks-lasting field trip in the Balkans, Colin Plant accompanied by Andy King, on their way back to the UK, visited me here, in Slovenia. The field trip was primarily devoted to



Slovenia, the Rače ponds, 7 July 2019. From right to left: Stanislav Gomboc, Colin W. Plant, Andy King, Dušan Devetak. Photo S. Gomboc.

the survey of the Lepidoptera in the frame of the Balkans Moths Project, but Colin still found time to collect a few lacewings there including a species new to the Albanian fauna, which we will write-up together. Thanks to the excellent co-ordination of Slovenian entomologist Stanislav Gomboc who also joined us, we spent one night (7-8 July) in Rače, in the vicinity of the Rače ponds, where we put up our light-traps within the forest. Despite the main focus was light-trapping moths, a few common lacewings also came to the light.

From Horst Aspöck & Ulrike Aspöck

17th Meeting of the German-speaking neuropterologists

The traditional meeting took place in the castle of Schwanberg near Iphofen (Bavaria) from 12 to 14 April 2019. It was attended by 13 persons;



12 April 2019. Germany, Schwanberg near Iphofen. Walk and discussions outside. From left to right: Florian Weihrauch, Horst Aspöck, Axel Gruppe, Max Pinther, Karl Meissner, Ulrike Aspöck, Christoph Sikorski, Steffen Potel, and N.N. (Photo L. Weltner.)

altogether 12 presentations were given covering a broad spectrum of topics: "The dust of dustywings", "Wax glands in Coniopterygidae" (Ch. Sikorski, A. Gruppe), "The penisfillum of the Neuroptera and its phylogenetic potential" (U. Aspöck, H. Aspöck), "Overwintering of Chryopidae" (J. Gepp), "Open questions in raphidiopterology" (H. Aspöck, U. Aspöck, A. Gruppe), "Larval development of Raphidioptera, the first year" (A. Gruppe, H. Aspöck, U. Aspöck), "Strategies of predation of *Euroleon nostras* – with and without funnel", "Antlions and ants: dimensions of a predator-prey relation" and



13 April 2019. Germany, Schwanberg near Iphofen. In the lecture hall, from left to right: Leo Weltner, Florian Wehrauch, Horst Aspöck, Christoph Sikorski, Ulrike Aspöck, Johannes Gepp, Melitta Fuchs, Mrs. Schmitz, Karl Meissner, Oliver Schmitz, Max Pinther, Axel Gruppe, Steffen Potel, and N.N. (Photo L. Weltner .)

a fascinating video on patterns of movement of larvae and pupae of *Euroleon nostras* (K. Meissner), "Red lists of Neuropterida in Germany and Bavaria" (A. Gruppe).



14 April 2019. Germany, Schwanberg near Iphofen. Max Pinther (left) and Johannes Gepp. (Photo archive H. & U. Aspöck.)

There was plenty of time for discussions after the lectures, during the meals, and outside in the gardens and forests surrounding the castle. Everybody enjoyed these intellectually active days in a harmonic atmosphere in a remote place.

From Dušan Devetak, Tina Klenovšek and Vesna Klokočovnik

Field work in North Macedonia and Greece 2019

Ninth Slovenian Neuropterological Expedition to the Balkans

After eight successful Neuropterological Expeditions to the Balkans (2011-2018), organized by zoologists from the Department of Biology, University of Maribor, North Macedonia and Greece were our priority this year. This was our third expedition to North Macedonia in the last three years. In the meantime, the country formerly known as the Republic of Macedonia officially changed its name in the beginning of 2019 to the Republic of North Macedonia.



Owlfly *Libelloides lacteus*. Peloponnesus, Makroni, 20 June 2019. Photo F. Janžekovič.

At the end of June 2019, the zoology group (Tina Klenovšek, Vesna Klokočovnik, Jan Podlesnik, Franc Janžekovič, Boža Janžekovič, Dušan Devetak) had a great opportunity to undertake a collecting field trip to North Macedonia and Greece.



Dry meadow along Lake Prespa, a place of *Mantispa styriaca* and *M. aphavexelte*. 22 June 2019. Photo D. Devetak.

Franc and Boža Janžekovič travelled separately

due to the fact that Franc participated in the 14th International Congress on the Zoogeography and Ecology of Greece and Adjacent Regions in Thessaloniki, Greece. They explored diverse habitats in the northern and central Greece and Peloponnesus.



Spoon-winged lacewing, *Nemoptera sinuata*. Dry meadow close to the river Vardar. 20 June 2019. Photo V. Klokočovnik.

In this year, our expedition included all three great natural lakes in the North Macedonia – Lake Ohrid, Prespa and Dojran. A nice surprise were additional findings of *Sisyra*-adults on vegetation along Lake Ohrid and the river Vardar. Near Veles, in dry meadows close to the Vardar, a great number of spoon-winged lacewings (*Nemoptera sinuata*) and few adult antlions were very active during a very hot sunny day.



Šar Planina Mountain, 24 June 2019. From left to right: Tina Klenovšek, Vladimir Krpač, Dušan Devetak, Jan Podlesnik, Vesna Klokočovnik. Photo V. Klokočovnik.

In this year, we also attempted to trace two enigmatic lacewing species. A few years ago, one of us (DD) studied the lacewing collection of the Macedonian Museum of Natural History in

Skopje and noted two individuals of a rare antlion species *Cueta lineosa* collected in 1945



Habitat of the antlion *Cueta lineosa*, 21 June 2019. Photo D. Devetak.



Šar Planina Mountain is the second highest mountain chain in N. Macedonia. 25 June 2019. Photo D. Devetak.

in the surroundings of the capital of N Macedonia, Skopje.



Vladimir Krpač. Šar Planina Mountain, 24 June 2019. Photo D. Devetak.

The aim of our expedition, among others, was to confirm recent occurrence of this species in the country. Indeed, we found this antlion species constructing pits in fine sand at two locations.



Institute of Ecology and Technology of the University of Tetovo, Popova Šapka, Šar Planina Mountain. From left to right: Vladimir Krpač, Slavčo Hristovski, Aleksandra Cvetkovska Gjorgjievaska, Jan Podlesnik. 24 June 2019. Photo D. Devetak.

The last two days were devoted to exploration of the Šar Planina Mountain, which is the second highest mountain chain in North Macedonia. Alpine and subalpine habitats are characteristic for the area. We were guests of Vladimir Krpač, the head of the Institute of Ecology and



Light-trapping in Popova Šapka, Šar Planina Mt. Jan Podlesnik and Vladimir Krpač. 24 June 2019. Photo D. Devetak.

Technology of the University of Tetovo. As an experienced entomologist, he organized light-trapping and suggested habitats with rich neuropterid assemblages. During one night, light source attracted four *Wesmaelius* species, two of them recorded for the first time for the country.



Vesna Klokočovnik collecting green lacewings. Šar Planina Mt., Lisets. 24 June 2019. Photo D. Devetak.

Our colleague Slavčo Hristovski from the Ss. Cyril and Methodius University in Skopje joined us during our last day. Vladimir Krpač and Slavčo Hristovski both helped to resolve the question of a possible occurrence of another enigmatic lacewing species in the Šar Planina Mountain. We were looking for a rare brown lacewing species, *Hemerobius schedli*, and luckily, we were successful just on the last day of our stay. After the finding in the Pelister National Park in 2017, the Šar Planina Mountain was the second collecting place of this rare species in North Macedonia and third in the Balkan Peninsula.



Tina Klenovšek and Vladimir Krpač at the collecting place of *Hemerobius schedli*. 25 June 2019. Photo D. Devetak.

During our expeditions in North Macedonia, the known number of the Neuropterida species for the country has doubled; it is estimated that there are currently more than hundred species altogether.

Recent Literature on the Neuropterida (2019)

Organized by Agostino Letardi with the support of John D. Oswald and BotN project
(<http://lacewing.tamu.edu/Biblio/Main>)

- Abdalla, I. H.; Mansell, M. W.; Sole, C. L. 2019. Revision of the southern African genera *Nemopterella* Banks and *Nemia* Navás (Neuroptera: Nemopteridae: Nemopterinae), with descriptions of new genera and species. *Zootaxa* 4635:1-89. [BotN ref#18711]
- Ardila-Camacho, A.; Cancino-Lopez, R. J.; Acevedo, F.; Contreras-Ramos, A. 2019. Four new species of *Plega* Navás, 1928 (Neuroptera: Mantispidae) from Mexico. *Zootaxa* 4612(3):351-372. [BotN ref#18684]
- Arrigoni, P.; Bulgheri, E.; Donati, W.; Giovacchini, P.; Tosi, G. 2019. *Isola del Giglio. Tesoro della Natura*. Effigi Edizioni, Arcidosso (GR), 168 pp. [BotN ref#18760]
- Badano, D. 2019. Evolution and biology of the larvae of Neuroptera Myrmeleontiformia. In: De Mattheis, E.; Di Giulio, A.; Zapparoli, M. 2019. *Riassunti delle comunicazioni e dei poster*. Univ. Roma3, pag. 89.
- Bai, H.; Chang, H.; Shih, C.; Ren, D.; Wang, Y. 2019. New silky lacewings from mid-Cretaceous Burmese amber (Insecta: Neuroptera: Psychopsidae). *Zootaxa* 4661(1): 182–188. [BotN ref#18761]
- Canard, M.; Monserrat, V. J. 2019. Nomenclature of the type species of the genus *Rexa* Navás, 1920 (Neuropterida, Chrysopidae). *Bulletin de la Société Entomologique de France* 124(2): 165-176. [BotN ref#18707]
- Devetak, D.; Jakšić, P. 2019. Lacewings (Insecta: Neuropterida: Raphidioptera, Megaloptera, Neuroptera) collected in Montenegro with checklist of species. *Biologica Nyssana* 10(1): 35-41. DOI: 10.5281/zenodo.3464002 [BotN ref#18762]
- Dobosz, R. 2019. Sikhote-Alin. Scientific research in the Primorsky Krai - problems, questions, doubts: 9–11. [In:] Bunalski M., Sienkiewicz P. (red.). *Entomofauna środowisk wilgotnych i wodnych – różnorodność, ochrona i kierunki badań*. 51 Zjazd Polskiego Towarzystwa Entomologicznego oraz IX Ogólnopolska Konferencja Naukowa z cyklu „Ochrona owadów w Polsce” Urszulin, 10-13 września 2019 r. [BotN ref#18763]
- Dobosz, R.; Krivokhatsky, V.A. 2019. *Nemoptera sinuata* Olivier, 1811 (Neuroptera: Nemopteridae) – old new record for Russia. *Russian Entomological Journal* 28(1): 64–65. [BotN ref#18764]
- Dobosz, R.; Makarkin, V. N.; Sergeyev, M. E. 2019. Contributions to the knowledge of the entomofauna of the Sikhote-Alin Biosphere Reserve. I. Neuropteroid insects: alderflies (Megaloptera: Sialidae), snake-flies (Raphidioptera) and lacewings (Neuroptera). *Annals of the Upper Silesian Museum in Bytom, Entomology* 28 (online 004):1-30. [BotN ref#18719]
- Duelli, P.; Monserrat, V.J.; Henry, C.S. 2019. First Report of *Chrysoperla mutata* (Mclachlan, 1898) (Neuroptera: Chrysopidae) on the Canary Islands. *Entomological News* 128(5): 486-492. [BotN ref#18758]
- Duelli, P.; Wermelinger, B.; Moretti, M.; Obrist, M. K. 2019. Fire and windthrow in forests: winners and losers in Neuropterida and Mecoptera. *Alpine Entomology* 3:39-50. [BotN ref#18574]

- Hajiesmaeilian, A.; Shoushtari, R. V.; Mozaffarian, F.; Ebrahimi, E.; Krivokhatsky, V. A. 2019. Discovery and description of the male *Echthromyrmex sehitlerolmez* Koçak & Kemal (Neuroptera: Myrmeleontidae) from Iran. *Journal of Entomological Society of Iran* 38(4): 423-427. [BotN ref#18765]
- Hassan, M. A.; Oswald, J. D.; Zia, A.; Liu, X.-y. 2019. Neuropterida (Insecta: Megaloptera, Raphidioptera, Neuroptera) of Pakistan: a catalogue and faunistic review. *Zootaxa* 4686:497-541. [BotN ref#18759]
- Hayashi, M. 2019. Records of larva and pupa of *Sisyra nikkoana* (Navás) from Shimane Prefecture, Japan. *Bulletin of the Hoshizaki Green Foundation* 22:239-240. [BotN ref#18564]
- Hiermann, U.; Kopf, T.; Gruppe, A. 2019. Streufunde von Kamelhalsfliegen und Netzflüglern (Insecta: Raphidioptera, Neuroptera) im Gebiet Stutz/Bazora in Frastanz (Vorarlberg, Österreich). *inatura – Forschung online* 68: 1-3. [BotN ref#18766]
- Huang, S.; Ren, D.; Wang, Y.-j. 2019. A new basal beaded lacewing (Neuroptera: Berothidae) from mid-Cretaceous Myanmar amber. *Cretaceous Research* 95:1-7. [BotN ref#18665]
- Jandausch, K.; Beutel, R. G.; Bellstedt, R. 2019. The larval morphology of the spongefly *Sisyra nigra* (Retzius, 1783) (Neuroptera: Sisyridae). *Journal of Morphology* XX:1-17. [BotN ref#18778]
- Jones, J.R. 2019. Total-evidence phylogeny of the owlflies (Neuroptera, Ascalaphidae) supports a new higher-level classification. *Zoologica Scripta* XX: 1-20. [BotN ref#18757]
- Kaur, S.; Pandher, M. S.; Chandra, K. 2019. First description of male of the type species *Parosmylus prominens* Needham, 1909 (Neuroptera: Osmylidae) from India. *Zootaxa* 4604(2):395-400. [BotN ref#18723]
- Kaur, S.; Pandher, M. S.; Chandra, K. 2019. Description of the male of *Distoleon sambalpurensis* Ghosh, 1984 (Neuroptera: Myrmeleontidae) from India. *Zootaxa* 4661(3):587-593. [BotN ref#18767]
- Langerholc, E.; Devetak, D. 2019. Alderflies and lacewings (Neuropterida: Megaloptera, Neuroptera) of the Natura 2000 protected area in Slovenia: Ličenca Near Poljčane – Petelinjek Ponds. *Acta Entomologica Slovenica* 27(1): 31-41. [BotN ref#18695]
- Li, D.; Aspöck, H.; Aspöck, U.; Liu, X.-y. 2019. A review of the pleasing lacewing genus *Dilar* Rambur (Neuroptera, Dilaridae) from Central Asia. *Zootaxa* 4671(1): 035-054. [BotN ref#18768]
- Li, H.; Wang, B.; Liu, X.-y. 2019. First description of the male of *Cretaconiopteryx grandis* Liu & Lu, 2017 (Neuroptera: Coniopterygidae) from the Cretaceous Burmese amber. *Zootaxa* 4674(4): 482-490. [BotN ref#18769]
- Lu, H.-y.; Bai, S.; Lu, X.-m.; Zhang, W.-w.; Wang, B.; Liu, X.-y. 2019. Taxonomic notes on dustywings of Aleuropteryginae (Insecta, Neuroptera, Coniopterygidae) from the mid-Cretaceous Burmese amber. *Cretaceous Research* 98:122-135. [BotN ref#18664]
- Lu, X.-m.; Wang, B.; Yang, S.-y.; Liu, X.-y. 2019. Early evolution of Nemopteridae illuminated with the first and oldest thread-winged lacewing in Cretaceous amber. *Systematic Entomology* 44:262-272. [BotN ref#18668]
- Makarkin, V.N. 2019. The First Mantidfly (Neuroptera: Mantispidae) from the Early Eocene Green River Formation. *Bulletin of the Peabody Museum of Natural History* 60(2):111–119. [BotN ref#18770]

- Makarkin, V. N.; Perkovsky, E. E.; Gröhn, C. 2019. Neotype designation and re-description of *Prolachlanius resinatus* (Hagen) (Neuroptera, Hemerobiidae) from Baltic amber, with the first record of the species from Rovno amber. *Zootaxa* 4688(1): 057-070. [BotN ref#18771]
- Mari, J. M.; Mari, S.; Kumar, S.; Sultana, R. 2019. Utilization of biocontrol agents in the management of okra pests. *Plant Protection* 3(01): 1-7. [BotN ref#18772]
- Marquez-Lopez, Y.; Contreras-Ramos, A. 2019. A new species of *Wesmaelius* Krüger from Mexico, with a key to the New World species of the subgenus *Kimminsia* Killington (Neuroptera, Hemerobiidae). *ZooKeys* 841: 61-70. [BotN ref#18773]
- Nartshuk, E.P.; Krivokhatsky, V.A.; Evenhuis, N.L. 2019. First record of a bee fly (Diptera: Bombyliidae) parasitic on antlions (Myrmeleontidae) in Russia. *Russian Entomological Journal* 28(2): 189-191. [BotN ref#18708]
- Pantaleoni, R.A.; Cocco, A.; Floris, I.; Letardi, A.; Loru, L. 2019. Going overseas: from island to continent colonization in the Mediterranean snakefly *Fibla maclachlani* (Albarda, 1891). *BioInvasions Records* 8(2): 442-451. [BotN ref#18674]
- Pérez de la Fuente, R.; Peñalver, E. 2019. A mantidfly in Cretaceous Spanish amber provides insights into the evolution of integumentary specialisations on the raptorial foreleg. *Scientific Reports* 9(13248):1-16. [BotN ref#18729]
- Podlesnik, J.; Klokočovník, V.; Lorent, V.; Devetak, D. 2019. Prey detection in antlions: propagation of vibrational signals deep into the sand. *Physiological Entomology* (2019): 1-7. [BotN ref#18718]
- Podlesnik, J.; Jakšić, P.; Nahirnić, A.; Janžekovič, F.; Klenovšek, T.; Klokočovník, V.; Devetak, D. 2019. Fauna of the brown lacewings of Serbia (Insecta: Neuroptera: Hemerobiidae). *Acta Entomologica Slovenica* 27(1): 17-29. [BotN ref#18717]
- Reynoso-Velasco, D.; Contreras-Ramos, A. 2019. Taxonomic review of the mantidfly genus *Nolima* Navás (Neuroptera, Mantispidae, Calomantispinae). *ZooKeys* 853: 131-158. [BotN ref#18775]
- Séméria, Y.; Gerriet, O.; Lambert, G. 2019. La collection de neuropteres Yves Semeria du Museum d'Histoire Naturelle de Nice (France). *Biocosme Méditerranéen* 36:1-17. [BotN ref#18716]
- Shi, C.-f.; Yang, Q.; Winterton, S. L.; Pang, H.; Ren, D. 2019. Stem-group fossils of Symphrasinae shed light on early evolution of Mantispidae (Insecta, Neuroptera). *Papers in Palaeontology* XX: 1-12. [BotN ref#18722]
- Shimonoya, M. 2019. A new species of the genus *Parachauliodes* (Megaloptera: Corydalidae: Chauliodinae) from northern Kyushu, Japan. *Zootaxa* 4585:151-167. [BotN ref#18703]
- Tauber, C. A. 2019. South American Nothochrysininae (Neuroptera, Chrysopidae): I. Description of *Nothochrysa ehrenbergi* sp. nov. *ZooKeys* 866:1-18. [BotN ref#18720]
- Tauber, C. A. 2019. South American Nothochrysininae (Neuroptera, Chrysopidae): II. Redescription of *Leptochrysa prisca* Adams & Penny. *ZooKeys* 866:19-38. [BotN ref#18721]
- Thierry, D.; Canard, M. 2019. Une Chrysope inhabituelle récoltée dans la Drôme: *Pseudomallada subcubitalis* (Navás, 1901) (Neuroptera Chrysopidae). *Entomologiste* 75(2): 123-124. [BotN ref#18706]

Wagner, H.C.; Wiesmair, B.; Paill, W.; Degasper, G.; Komposch, C.; Schattaneck, P.; Schneider, M.; Aurenhammer, S.; Gunczy, L.W.; Rabitsch, W.; Heimburg, H.; Zweidick, O.; Volkmer, J.; Frei, B.; Kerschbaumsteiner, H.; Huber, E.; Netzberger, R.; Borovsky, R.; Kunz, G.; Zechmeister, T.; Ockermüller, E.; Preiml, S.; Papenberg, E.; Kirchmair, G.; Fröhlich, D.; Allspach, A.; Zित्रा, C.; Svetnik, I.; Bodner, M.; Vogtenhuber, P.; Körner, A.; Thieme, T.; Christian, E.; Seeber, J.; Baumann, J.; Gross, H.; Hittorf, M.; Rausch, H.; Burckhardt, D.; Graf, W.; Baumgartner, C. 2019. Bericht über das fünfte ÖEG-Insektencamp: Biodiversitätsforschung im Nationalpark Donau-Auen (Wien, Niederösterreich). *Entomologica Austriaca* 26: 25–113. [BotN ref#18777]

Yang, Q.; Shi, C.-f.; Pang, H.; Ren, D. 2019. A new genus of giant lacewing (Insecta, Neuroptera, Ithonidae) from the Middle Jurassic of China. *Zootaxa* 4513(2): 375-378. [BotN ref#18776]

Yang, Q.; Shi, C.-f.; Ren, D. 2019. A new genus and species of berothids (Insecta, Neuroptera) from the Late Cretaceous Myanmar amber. *ZooKeys* 864:99-109. [BotN ref#18731]

Picture of the semester



From Lieutenant Colonel Bruno Petriccione (Comando Unità Tutela Forestale, Ambientale e Agroalimentare dell'Arma dei Carabinieri)

An Austrian researcher at the Cammino LTER "L'uomo e l'ambiente" (Men and Environment), 23-27 september 2019 between Austria and Italy

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: 2019

Band/Volume: [29](#)

Autor(en)/Author(s): diverse

Artikel/Article: [Lacewing News 29 1](#)