Lacewing News

NEWSLETTER OF THE INTERNATIONAL ASSOCIATION OF NEUROPTEROLOGY

No. 28 Spring 2019

Call to collaboration!

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 Aspöcks, the legacy of Dušan, the *foreveryoung* Michel Canard): how long will we wait for active presence of other neuropterologist in this newsletter?
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)

Current researches

From Tina Klenovšek, Franc Janžekovič and Dušan Devetak

Field work in Georgia 2018

Mountains of the Greater Caucasus near Gudauri. Photo T. Klenovšek.

Zoologists, Franc Janžekovič and Tina Klenovšek, from the Department of Biology, University of Maribor, in cooperation with Boris Kryštufek from the Slovenian Natural History Museum and Alenka Kryštufek, organized a field

trip to the Greater and Lesser Caucasus Mountains in Georgia.
The main goal of the expedition was to check and list locations of the Long-clawed mole vole *Prometheomys schaposchnikowi* that is endemic to Caucasus. It lives in alpine meadows at elevations above 1500 m asl. As its name suggests, this vole uses long claws to dig burrows and makes hills of soil similar to molehills, which helped us detect the animal presence in grazed meadows. Surely, after years of experience in neuropterological expedition to the Balkans and interest in Neuroptera, F. J. and T. K., took every opportunity to sweep insect nets and collect some interesting species.

Alpine grazed meadow near Gudauri (2196 m asl) in the Greater Caucasus. The “mole”hills belong to the Long-clawed mole vole Prometheomys schaposchnikowi. Photo F. Janžekovič.

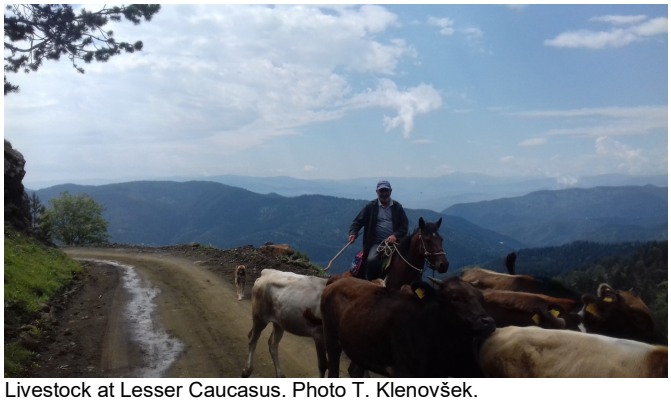
At the end of June 2018, we flew from Ljubljana to Istanbul and Tbilisi, the capital city of Georgia. Georgia (native: Sakartvelo) is a country in the Caucasian region of Eurasia that lies at the junction of Western Asia and Eastern Europe. It is a mountainous country (the highest peak is Shkhara 5201 m) located at the eastern shore of the Black Sea, with diverse landscape and well-developed livestock and plant production. It is considered to be the origin of vines.
First, we travelled along a Military Road, which is a historic name for a busy major route through the Greater Caucasus Mountain Range connecting Georgia to Russia, to a ski-resort in Gudauri. Though it was cloudy and rainy, with temperatures low for June, one morning we saw the hotel facade covered with green lacewings. We continued our journey along the Kura River to the town Borjomi, where we visited the Borjomi-Kharagauli National Park in the area of the Lesser Caucasus. The region is known for its well preserved native mixed forests and mountain meadows. High mountain plateaus are used for livestock grazing. Most of the field work was carried out above 2000 m in cold and windy conditions. Luckily, while descending from the mountains, at a small meadow surrounded by a mixed forest, we saw a beautiful female owlfly *Libelloides hispanicus ustulatus*. This species is also known from the neighbouring countries, Armenia, Azerbaijan, Russia and Turkey.

Owlfly *Libelloides hispanicus ustulatus*. Photo F. Janžekovič.

Green lacewing Chrysopa fuscostigma. Photo D. Devetak.

During the 6-day filed trip in Georgia, we collected approx. a dozen of different Neuroptera species. Besides the owlfly, another interesting and beautiful species of green lacewings *Chrysopa fuscostigma* was found, a species described by Esben-Petersen, 1933 and also known for Turkey and Russia. In addition, some species of brown lacewings and dustywings were collected.

Meadow inside forest at Lesser Caucasus, where the owlfly was found. Photo F. Janžekovič



Livestock at Lesser Caucasus. Photo T. Klenovšek.

Although the Neuropteran fauna of Georgia is already relatively well explored, we recommend this destination for its amazing diversity of landscapes, unique culture, language and alphabet, as well as architecture that has been influenced by various styles. The country is opened towards Europe, safe and very welcoming to tourists.

Social meetings

From Horst Aspöck & Ulrike Aspöck

A pleasant visit from Brazil in Vienna

Natural History Museum Vienna. 4 December 2018. From left to right: Ulrike Aspöck, Renato Machado and Horst Aspöck. (Photo archive H. & U. Aspöck.)

In December 2018 our colleague Dr. Renato Jose Pires Machado, recently appointed professor at the Departamento de Zoologia, Universidade Federal de Paraná, Curitiba, Brazil, and responsible for Neuroptera and Mecoptera taxonomy and well-known as first author or co-author of several important recent publications, spent a few days in Vienna. We met him at the Natural History Museum for discussion on various current topics in Neuropterology. In particular we also spoke about the excellent precondition for the next International Symposium on Neuropterology to be held in Brazil. There are several young and very successful neuropterologists in Brazil now and we are looking forward to a great event in 2021.

Recent Literature on the Neuropterida (2018-2019)
Organized by Agostino Letardi with the support of John D. Oswald and BotN project
(http://lacewing.tamu.edu/Biblio/Main)

Abbt, V.; Gruppe, A.; Aspöck, H.; Aspöck, U. 2018. Einfluss der Überwinterungsdauer auf die Metamorphose bei Raphidioptera-Larven. *Mitteilungen der Deutsche Gesellschaft für Allgemeine und Angewandte Entomologie* 21:305-308. [BotN ref#18411]

Akhtar, S. 2018. DNA based identification and genetic diversity studies of antlion species of Pakistan. Ph.D. dissertation. University of Agriculture, Peshawar, Pakistan. [3] + ix + 180 pp [BotN ref#18359]

Alvim, B. G. C.; Krolow, T. K. 2018. Neuroptera (Insecta) do Parque Estadual do Cantão, Pium, Tocantins. III Seminario integrado de ensino, pesquisa, extensao e cultura – UFT. 6 pp.

Alvim, B. G. C.; Machado, R. J. P.; Krolow, T. K. 2019. Mantidflies (Neuroptera, Mantispidae) from Tocantins state (Brazil): distribution and identification key. *Check List* 15(2): 275-285.

Antoł, A.; Rojek, W.; Miler, K.; Czarnoleski, M. 2018. Thermal dependence of trap building in predatory antlion larvae (Neuroptera: Myrmeleontidae). *Journal of Ethology* 36:199-203. [BotN ref#18374]

Ardila-Camacho, A.; Contreras-Ramos, A. 2018. The Megaloptera (Insecta : Neuropterida) of Colombia. *Aquatic Insects* 39(2-3):297-353. [BotN ref#18408]

Badano, D.; Makris, C.; John, E.; Hadjiconstantis, M.; Sparrow, D.; Sparrow, R.; Thomas, B.; Devetak, D. 2018. The antlions of Cyprus: review and new reports (Neuroptera: Myrmeleontidae). *Fragmenta entomologica* 50(2): 95-102. [BotN ref#18541]

Canard, M.; Danflous, S.; Thierry, D.; Tillier, P.; Villenave-Chasset, J. 2019. Cinquième complément a la cartographie des Chrysopes de France (Neuroptera, Chrysopidae). *Revue de l'Association Roussillonnaise d'Entomologie* 28(1): 28-33. [BotN ref#18514]

Canard, M.; Thierry, D. 2019. What is the true identity of the brown lacewings called *Hemerobius australis* (Neuropterida, Hemerobiidae) ? *Bulletin de la Société Entomologique de France* 124 (1): 103-107. [BotN ref#18537]

Devetak, D.; Podlesnik, J.; Klokocovnik, V. 2018. Predator-prey interactions in antlions: transmission of vibrational signals deep into the sand. *Acta Entomologica Slovenica* 26(2): 121-130. [BotN ref#18542]

Devetak, D.; Zeqiri, R. 2018. Lacewings (Insecta: Neuroptera) in the collection of the Macedonian Museum of Natural History in Skopje. *Acta Musei Macedonici Scientiarum Naturalium* 21: 113-122. [BotN ref#18543]

Dobosz, R.; Junkiert, Ł. 2018. *Cunctochrysa cosmia* (Navás, 1918) – a species of green lacewings new to Poland (Neuroptera: Chrysopidae). *Annals of the Upper Silesian Museum in Bytom, Entomology* 27:___-___[27(online 009):1-8]. [BotN ref#18409]

Duelli, P.; Obrist, M. K. 2019. In search of the real *Pseudomallada prasinus* (Neuroptera, Chrysopidae). *Zootaxa* 4571(4): 510-530. [BotN ref#18538]

Franks, N.R.; Worley, A.; Falkenberg, M.; Sendova-Franks, A.B.; Christensen, K. 2019. Digging the optimum pit: antlions, spirals and spontaneous stratification. *Proceedings of the Royal Society B* 286: 20190365. 9pp. http://dx.doi.org/10.1098/rspb.2019.0365

Garzón-Orduña, I. J.; Winterton, S. L.; Jiang, Y.-l.; Breitkreuz, L.C.V.; Duelli, P.; Engel, M.S.; Penny, N.D.; Tauber, C.A.; Mochizuki, A.; Liu, X.-y. 2018. Evolution of green lacewings (Neuroptera: Chrysopidae): a molecular supermatrix approach. *Systematic Entomology* __:___-___ [preprint: 1-15]. [BotN ref#18410]

Hatt, S.; Uytenbroeck, R.; Lopes, T.; Mouchon, P.; Osawa, N.; Piqueray, J.; Monty, A.; Francis, F. 2018. Identification of flower functional traits affecting abundance of generalist predators in perennial multiple species wildflower strips. *Arthropod-Plant Interactions* X: 1-11. [BotN ref#18544]

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Holderied, M. W.; Thomas, L. A.; Korine, C. 2018. Ultrasound avoidance by flying antlions (Myrmeleontidae). *Journal of Experimental Biology* 221:1-6. [BotN ref#18365]

Jandausch, K.; Pohl, H.; Aspöck, U.; Winterton, S. L.; Beutel, R. G. 2018. Morphology of the primary larva of *Mantispa aphavexelte* Aspöck & Aspöck, 1994 (Neuroptera: Mantispidae) and phylogenetic implications to the order of Neuroptera. *Arthropod Systematics & Phylogeny* 76(3): 529-560. [BotN ref#18507]

Krivokhatsky, V.A. 2018. *17 essaies in the parts Aramea and Insecta*. Red Data Book of Sanct-Petersburg. In: Geltman, D.V. (ed). Sanct-Petersburg.: Diton. 568 p.

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Krivokhatsky, V.A. 2019. On variability of two Arabian myrmeleontoid lacewings (Neuroptera: Myrmeleontidae, Ascalaphidae). *Entomological Review* 99(1):78-81.

Krivokhatsky, V. A.; Bagaturov, M. F.; Prokopov, G. A. 2018. Owlflies (Neuroptera: Ascalaphidae) of Crimea and alied [sic] taxa from the West Palaearctic. *Caucasian Entomological Bulletin* 14 (suppl.): 41-72. [BotN ref#18500]

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Liu, X.-y.; Li, D.; Yang, Z.-z. 2018. A new species of the montane lacewing genus *Rapisma* McLachlan (Neuroptera, Ithonidae) from China. *Zootaxa* 4531:266-270. [BotN ref#18511]

Liu, X.-y.; Lyu, Y.-n.; Aspöck, H.; Aspöck, U. 2018. New species of the snakefly genus *Mongoloraphidia* (Raphidioptera: Raphidiidae) from China. *Zootaxa* 4527(1):87-96. [BotN ref#18401]

Lonsdale, O.; Locke, M.M. 2018. Name-bearing type specimens in the Canadian National Collection of Insects, Arachnids & Nematodes (CNC): Blattodea, Dermaptera, Notoptera, Mecoptera,

Megaloptera, Myriapoda, Neuroptera, Odonata, Orthoptera, Phthiraptera, Pseudoscorpiones, Psocoptera, Raphidioptera & Siphonaptera. *Zootaxa* 4526(2):101-126. [BotN ref#18547]

Machado, R. J. P.; Gillung, J. P.; Winterton, S. L.; Garzón-Orduña, I. J.; Lemmon, A. R.; Lemmon, E. M.; Oswald, J. D. 2018. Owlflies are derived antlions: anchored phylogenomics supports a new phylogeny and classification of Myrmeleontidae (Neuroptera). *Systematic Entomology* 44:418-450. [BotN ref#18370]

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Miler, K.; Yahya, B. E. Czarnoleski, M. 2018. Different predation efficiencies of trap-building larvae of sympatric antlions and wormlions from the rainforest of Borneo. *Ecological Entomology* 43:255-262. [BotN ref#18399]

Nakamine, H.; Yamamoto, S. 2018. A new genus and species of thorny lacewing from Upper Cretaceous Kuji amber, northeastern Japan (Neuroptera, Rhachiberothidae). *ZooKeys* 802: 109-120. [BotN ref#18548]

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Perkovsky, E.E.; Makarkin, V. N. 2019. A new species of *Succinoraphidia* Aspöck & Aspöck, 2004 (Raphidioptera: Raphidiidae) from the late Eocene Rovno amber, with venation characteristics of the genus. *Zootaxa* 4576(3): 570-580.

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Rivera-Gasperín, S. L.; Ardila-Camacho, A.; Contreras-Ramos, A. 2019. Bionomics and ecological services of Megaloptera larvae (Dobsonflies, Fishflies, Alderflies). *Insects* 10(86): 1-14. [BotN ref#18539]

Rodríguez del Bosque, L. A.; Rodríguez Vélez, B.; Sarmiento Cordero, M. A.; Arredondo Bernal, H. C. 2018. Natural enemies of *Melanaphis sacchari* on grain sorghum in northeastern Mexico. *Southwestern Entomologist* 43:277-279. [BotN ref#18146]

Ruzickova, D.; Nel, A.; Prokop, J. 2019. New dustywings (Neuroptera, Coniopterygidae) from mid-Cretaceous amber of Myanmar reveal spectacular diversity. *ZooKeys* 827: 139-152. [BotN ref#18554]

Tauber, C. A.; Simmons, Z.; Tauber, J.A. 2019. Type specimens of Neuropterida in the Hope Entomological Collection, Oxford University Museum of Natural History. *ZooKeys* 823: 1-126. [BotN ref#18513]

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Winterton, S. L.; Martins, C. C.; Makarkin, V. N.; Ardila-Camacho, A.; Wang, Y.-j. 2019. Lance lacewings of the world (Neuroptera: Archeosmylidae, Osmylidae, Saucrosmylidae): review of living and fossil genera. *Zootaxa* 4581(1): 1-99.

Yi, P.; Yu, P.; Liu, J.-y.; Xu, H.; Liu, X.-y. 2018. A DNA barcode reference library of Neuroptera (Insecta, Neuropterida) from Beijing. *ZooKeys* 807: 127-147. [BotN ref#18556]

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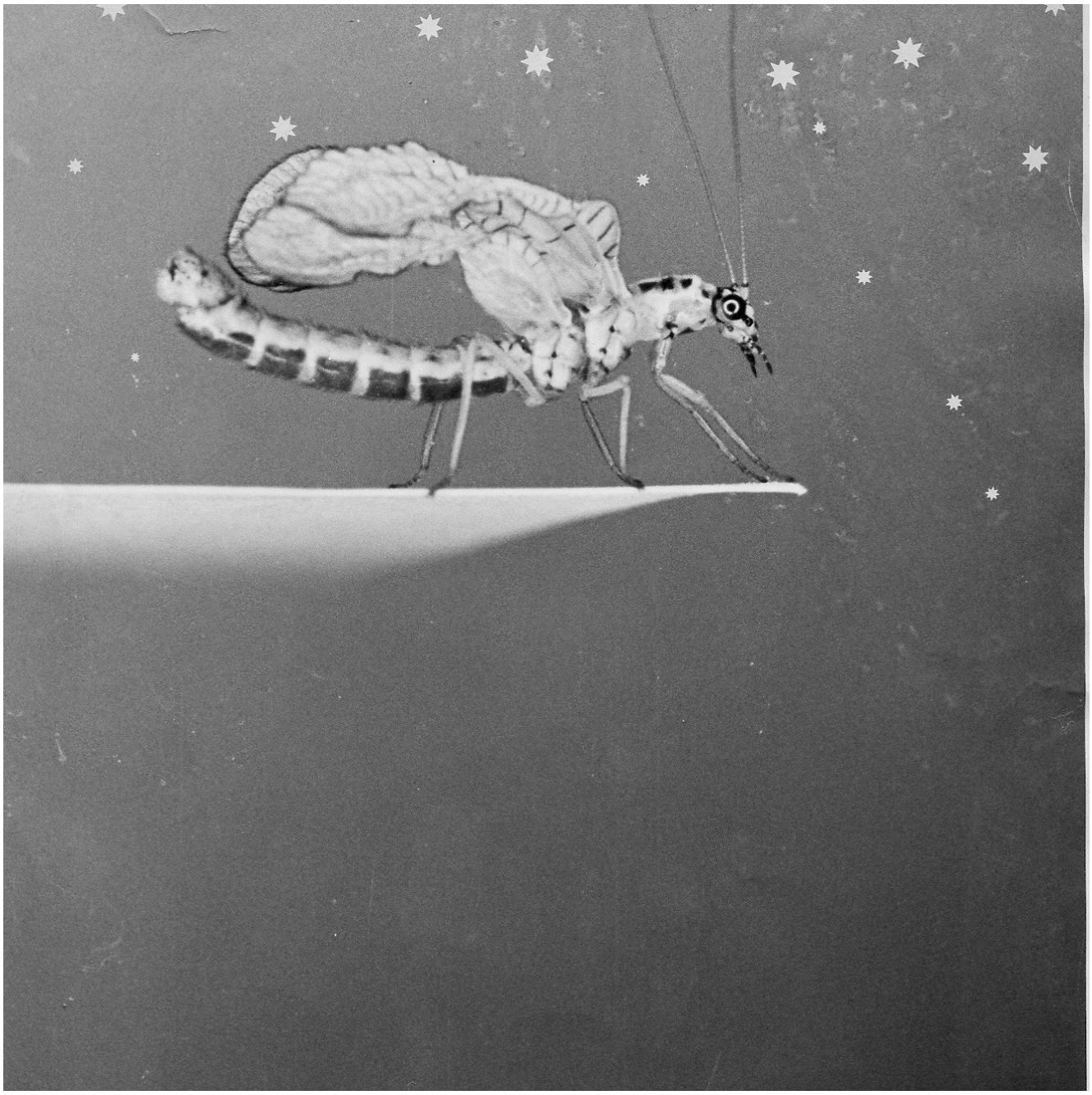
Picture of the semester



From Michel Canard

before taking a nose dive :"Is my parachute well arranged"? **Chrysopa perla** ***says***