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September 2018

Proceedings of the X Forum Herbulot

The 10th International Congress of Forum Herbulot with 77 participants, entitled “Integrative Taxonomy, a multidisciplinary approach to answer complicated taxonomic questions” took place in State Museum of Natural History Stuttgart, from 11.-16.6.2018.

The 52 presentations during nine sessions were chaired by Axel Hausmann (Munich, Germany), Robert Trusch (Karlsruhe, Germany), Pasi Sihvonen (Helsinki, Finland), Hossein Rajaei (Hamburg, Germany), Hunnar Brehm (Jena, Germany), Sei-Woong Choi (Jeonnam, South Korea), Feza Can (Hatay, Turkey), Nan Jiang (Beijing, China). (see next page)..



A newsletter for geometrid specialists

FORUM HERBULOT NEWSLETTER

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- P1-53: Proceedings of FH-10
- P45: Geometrid Moths of Europe
Vol.6; A report
- P54-58: An appreciation,
by: Manfred Sommerer
- P59: Update of catalogue
- P60: New publication
- P61-62: Geometridae Mundi
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Scientific board of FH
Honorary membership



The Forum Herbulot Newsletter appears irregularly one or several times per year and will be posted on the Forum Herbulot webpage www.herbulot.de. Old issues can be accessed there.

Membership in the Forum Herbulot initiative is free.

For more information contact Axel Hausmann: Axel.Hausmann@zsm.mwn.de or,

Hossein Rajaei: hossein.rajaei@smns-bw.de

As an innovative in this congress, a one hour workshop entitled “**LARGE-SCALE SCIENTIFIC PROJECTS: WORKSHOP ON PARTNER SEARCH**” was organized and presented by Pasi Sihvonen (Helsinki, Finland).

The conference started with a lecture on the ground-breaking effects of “Willi Hennig and the synthesis of phylogenetics and taxonomy”. Other presentations and break-out discussions followed on integrative taxonomy of geometrid moths.

The following keynote talks included contributions of:

- Malcolm J. Scoble (“Geometrid taxonomy: will past and present approaches meet future needs?”)
- Toomas Tammaru (“Making use of Geometrid phylogenies: Comparative analyses in evolutionary ecology”)
- Rodolphe Rougerie (“Saturniid and sphingid moths as novel models for the study of insect diversity and macroecology”)
- Jeremy Holloway (“The host-plant profile of the Geometridae in comparison with those of other Obectomera families in the Indo-Australian tropics”)
- Martin Krüger (“Following due process(es): remarks on the occurrence of Lithinini in southern Africa (Geometridae: Ennominae)”)
- Sei-Woong Choi (“Current knowledge of the Geometridae in South Korea: Are we still waiting more species?”).

The participants took part in two guided tours on Thursday (in Black Forest National Park) and Friday (City Tübingen and Burg Hohenzollern).

Some participants of this congress was financially supported by the German Research Foundation (DFG), which is highly appreciate by us, here. Also we are indebted to the organization team, staff and students in SMNS.

This newsletter contains the program, list of participants and a selection of photos of the congress.

Hossein Rajaei & Axel Hausmann



10th Forum Herbulot
June 11th –16th, 2018
Stuttgart, Germany

**NATURAL HISTORY
MUSEUM
STUTTGART**



Monday, 11th June 2018

Registration (14:00-18:00)

Ice-breaking with German barbeque (17:00-22:00)

Tuesday, 12th June 2018

Opening of the congress (09:00)

Presentations (09:30-15:30)

Three-minute talks and poster presentations (15:30-17:00)

Workshop: Large-scale scientific projects (17:00-18:00)

Wednesday, 13th June 2018

Presentations (09:00-17:30)

Congress dinner (19:00-22:00)

Thursday, 14th June 2018

Presentations (09:00-11:00)

Closing of the congress (11:00)

Excursion to the Black-forest (11:30-20:00)

Friday, 15th June 2018

Post-congress tour, City Tübingen &
Burg Hohenzollern (08:00-19:00)

Saturday, 16th June 2018

Departure



PROGRAMME & ABSTRACT BOOK



10th Forum Herbulot
June 11th –16th, 2018
Stuttgart, Germany



Monday	
14:00-17:00	Registration (Rosenstein 1, 70191 Stuttgart, Germany)
17:00-22:00	Ice-breaking

Tuesday	
09:00-09:10	Prof. Dr. Johanna Eder (Director of the State Museum of Natural History Stuttgart) WELCOME MESSAGE AND OPENING ADDRESS
09:10-09:20	Hossein Rajaei STATE MUSEUM OF NATURAL HISTORY STUTTGART, AN INTRODUCTION
09:20-09:30	Lars Krogmann WILLI HENNIG AND THE SYNTHESIS OF PHYLOGENETICS AND TAXONOMY
<u>SESSION: INTEGRATIVE TAXONOMY OF GEOMETRID MOTHS</u> Chair: Robert Trusch	
09:30-10:00 (25 + 3 Min)	Malcolm J. Scoble GEOMETRID TAXONOMY: WILL PAST AND PRESENT APPROACHES MEET FUTURE NEEDS?
10:00-10:15 (10 + 3 Min)	Julia Wildfeuer, Axel Hausmann MUSEOMICS AND MICRO-CT: NON-DESTRUCTIVE MICRO-CT APPROACH FOR FEMALE LEPIDOPTERA AT THE EXAMPLE OF THE GENUS PRASINOCYMA (LEPIDOPTERA, GEOMETRIDAE)
10:15-10:30 (10 + 3 Min)	Axel Hausmann UPDATES ON THE GERMAN CAMPAIGN FOR DNA BARCODING OF LEPIDOPTERA AND ON THE EUROPEAN AND GLOBAL CAMPAIGNS FOR GEOMETRID BARCODING
10:30-11:00	COFFEE BREAK
11:00-11:30 (25 + 3 Min)	Claude Tautel, Dieter Stüning A NEW GENUS OF HYPOCHROSINI (GEOMETRIDAE, ENNOMINAE) FROM THE PHILIPPINES AND SULAWESI, WITH DESCRIPTION OF THREE NEW SPECIES AND ONE NEW SUBSPECIES, AND THE FIRST OBSERVATION OF “REFLEX BLEEDING” IN THE GEOMETRIDAE FAMILY
11:30-11:45 (10 + 3 Min)	Dominic Wanke, Hossein Rajaei, Axel Hausmann THE ENIGMATIC <i>TRIPHOSA</i> GENUS: TAXONOMIC REVISION AND THREE NEW SPECIES FROM MIDDLE EAST AND CENTRAL ASIA (LEPIDOPTERA, GEOMETRIDAE, LARENTIINAE)
<u>SESSION: IMPROVING THE INFRASTRUCTURE FOR GEOMETRID RESEARCH</u> Chair: Pasi Sihvonen	
11:45-12:00 (10 + 3 Min)	Hugo A. Benítez WING SHAPE CAN TELL US STORIES: THE USE OF GEOMETRIC MORPHOMETRICS IN LEPIDOPTERA WINGS
12:00-12:20 (20 Min)	Hans Löbel, Axel Hausmann “GEOMETRIDAE MUNDI”, A NEW WAY OF SUMMARIZING THE DIVERSITY OF GLOBAL GEOMETRID SPECIES
12:20-12:35 (10 + 3 Min)	Claude Sinner INTEGRATION OF GEOMETRIDAE MUNDI INTO TAXONBENCH®
12:35-13:45	LUNCH
13:45-14:00 (10 + 3 Min)	Daniel Bolt THE GEOMETRID MOTHS OF SWITZERLAND, ANNOUNCEMENT PUBLICATION
14:00-14:15 (10 + 3 Min)	Gunnar Brehm A NEW EFFICIENT LAMP TO COLLECT LEPIDOPTERA AND GENERAL REMARKS ON LIGHT-TRAPPING
14:15-14:30 (10 + 3 Min)	Geoff Martin, Alberto Zilli, Alessandro Giusti, Louise Allan, Peter Wing, Phaedra Kokkini, Flavia Toloni, David C. Lees THE DIGITISATION OF MADAGASCAN TYPE SPECIMENS AT THE NATURAL HISTORY MUSEUM, LONDON, UK WITH SPECIAL REFERENCE TO THE GEOMETRIDAE
14:30-14:45 (10 + 3 Min)	Christian König UNLOCKING GENOMIC TREASURE CHESTS – HIGH-THROUGHPUT COLLECTION GENOMICS
14:45-15:15	COFFEE_BREAK

15:15-15:30 (10 + 3 Min)	<u>Dorothee Silbermann</u> , Karl Hoeing, Hossein Rajaei INTRODUCTION TO THE PROJECT: BUTTERFLY ALARM - NATURE IN DANGER; A DIGITAL PRINT PROJECT
SESSION: THREE MINUTES TALKS Chair: Hossein Rajaei	
15:30-16:15	- Josefina Eck: "NIGHT-CRAWLER", BUTTERFLY ALARM - NATURE IN DANGER - Kira de Picciotto: "HUNGRY CATERPILLAR", BUTTERFLY ALARM - NATURE IN DANGER - Marla Bernhard: "INJURED", BUTTERFLY ALARM - NATURE IN DANGER - Mirela Gospocic: "ROUNDUP", BUTTERFLY ALARM - NATURE IN DANGER - Julia Klawitter: "LOSS OF BEAUTY", BUTTERFLY ALARM - NATURE IN DANGER - Sophie Ringgenburger: "LIGHT AND ILLUSORY WORLD", BUTTERFLY ALARM - NATURE IN DANGER - Bernd Müller: NEW SPECIES OF THE GENUS BISTON FROM THE BALKAN PENINSULA (LEPIDOPTERA, GEOMETRIDAE, ENNOMINAE) - <u>Dominic Wanke</u>, Hossein Rajaei: CONFUSING SYNTYPES – APPEARING ISSUES DURING INVESTIGATION AND ITS SOLUTION - <u>Chantal Holzhaue</u>, Hossein Rajaei: A CASE OF GYNANDROMORPHY IN GEOMETRID MOTH - <u>Sille Holm</u>, Tõnis Tasane, Erki Õunap and Toomas Tammaru: GENUS <i>CLEORA</i> (GEOMETRIDAE, ENNOMINAE) IN TROPICAL UGANDA - Timm Karisch: NOTES ON THE DISTRIBUTION, BIOLOGY AND HABITATS OF SCOPULA SEPARATA ON ST HELENA ISLAND - <u>Donata Kamm</u>, <u>Chris Schäuffele</u>, <u>Noa Schwabe</u>, Michael Haas, Christian König, Hossein Rajaei: AN INTEGRATION OF DNA-BARCODING, MORPHOLOGICAL TRAITS AND GEOGRAPHIC DISTRIBUTION DATA TO SPECIE DELIMITATION OF <i>PERIBATODES PERVERSARIA</i> (BOISDUVAL, 1840) (LEPIDOPTERA: GEOMETRIDAE) - <u>Shamsi Feizpour</u>, Lida Fekrat, Axel Hausmann, <u>Hossein Rajaei</u>: EMERALD MOTHS OF IRAN (GEOMETRIDAE, GEOMETRINAE)
16:15-17:00	SESSION: POSTER PRESENTATIONS
	1. Josefina Eck; 2. Kira de Picciotto; 3. Marla Bernhard; 4. Mirela Gospocic; 5. Julia Klawitter; 6. Sophie Ringgenburger; 7. Bernd Müller; 8. Dominic Wanke; 9. Chantal Holzhaue; 10. Sille Holm; 11. Timm Karisch; 12. Donata Kamm, Chris Schäuffele, Noa Schwabe; 13. Hossein Rajaei
WORKSHOP Chair: Pasi Sihvonen	
17:00-18:00	LARGE-SCALE SCIENTIFIC PROJECTS: WORKSHOP ON PARTNER SEARCH Rui Cheng, Nan Jiang, Dayong Xue & Hongxiang Han Phylogeography and evolutionary history of some geometrid taxa on global scale Pritha Dey Morphological and genetic adaptations of high-altitude Geometrid moths and the impacts of climate change: A study from global mountain systems Axel Hausmann, Malcolm J. Scoble, Pasi Sihvonen, Hossein Rajaei & Gunnar Brehm Update of the "Catalogue: Geometrid Moths of the World" Pasi Sihvonen et al. Pushing the boundaries to the extreme: Global phylogeny of geometrid moths Hossein Rajaei, Shamsi Feizpour, Axel Hausmann, Vladimir Mironov & Ulrich Ratzel Geometrid moths of Iran, an integrative approach

Wednesday	
SESSION: PHYLOGENY AND SYSTEMATICS OF THE FAMILY GEOMETRIDAE (PART I)	
Chair: Gunnar Brehm	
09:00-09:20 (17 + 3 Min)	<u>Toomas Tammaru</u> , Robert B. Davis, Erki Õunap, Sille Holm, Juhan Javoš MAKING USE OF GEOMETRID PHYLOGENIES: COMPARATIVE ANALYSES IN EVOLUTIONARY ECOLOGY
09:20-09:35 (10 + 3 Min)	<u>Pasi Sihvonen</u> , Gunnar Brehm, Leidys Murillo-Ramos, Hermann Staude & Niklas Wahlberg SHAKING THE TREE: REVISED PHYLOGENY AND CLASSIFICATION OF THE GEOMETRID SUBFAMILY STERRHINAE
09:35-09:50 (10 + 3 Min)	<u>Chantal Holzhausen</u> , Hossein Rajaei MORPHOLOGICAL BASED PHYLOGENY OF THE TRIBE CHESIADINI (LEPIDOPTERA, GEOMETRIDAE, LARENTIINAE)
09:50-10:05 (10 + 3 Min)	<u>Evgeny A. Beljaev</u> , Oleg A. Velyaev THE GENUS <i>HYPOMECIS</i> (LEPIDOPTERA: GEOMETRIDAE, ENNOMINAE): ADVANCES TO THE PHYLOGENETIC STRUCTURE AND RELATIONSHIPS IN BOARMIINI
10:10-11:10	COFFEE BREAK & CONGRESS PHOTO
SESSION: PHYLOGENY AND SYSTEMATICS OF THE FAMILY GEOMETRIDAE (PART II)	
Chair: Sei-Woong Choi	
11:10-11:25 (10 + 3 Min)	<u>Leidys Murillo-Ramos</u> , Gunnar Brehm, Pasi Sihvonen, Hamid Ghanavi, Niklas Wahlberg MOLECULAR SYSTEMATICS PROVIDE NEW INSIGHTS TO THE TAXONOMY AND RELATIONSHIPS OF THE MAJOR LINEAGES OF GEOMETRID MOTH (LEPIDOPTERA: GEOMETRIDAE)
11:25-11:40 (10 + 3 Min)	David Plotkin PHYLOGENY OF THE EMERALD MOTHS (GEOMETRIDAE: GEOMETRINAE)
11:40-11:55 (10 + 3 Min)	<u>Gunnar Brehm</u> , Leidys Murillo-Ramos, Pasi Sihvonen, Florian Bodner, Daniel Bolt, Christian B. Schmidt, Alfred Moser, Axel Hausmann, Erki Õunap, Jaan Viidalepp, Aare Lindt, Luis Parra, Toomas Tammaru, Niklas Wahlberg MOLECULAR PHYLOGENY OF NEW WORLD GEOMETRID MOTHS (LEPIDOPTERA: GEOMETRIDAE)
11:55-12:10 (10 + 3 Min)	Hermann Staude A PHYLOGENETIC COMPARISON OF AFROTROPICAL GEOMETRIDAE AND THEIR HOST-PLANTS
12:10-12:25 (10 + 3 Min)	<u>Rui Cheng</u> , Nan Jiang, Dayong Xue, Hongxiang Han THE RESEARCH STATUS OF PHYLOGEOGRAPHY AND BIODIVERSITY OF LEPIDOPTERA IN CHINA; CASE STUDIES OF GEOMETRIDAE
12:25-12:40 (10 + 3 Min)	<u>Nan Jiang</u> , Rui Cheng, Dayong Xue, Hongxiang Han RECENT PROGRESS ON TAXONOMY AND PHYLOGENY OF THE FAMILY GEOMETRIDAE FROM CHINA
12:40-13:30	LUNCH
ECOLOGICAL STUDIES ON GEOMETRID MOTHS AND OTHER LEPIDOPTERA	
Chair: Feza Can	
13:30-14:00 (22 + 3 Min)	<u>Rodolphe Rougerie</u> , Liliana Ballesteros-Mejia and the ACTIAS/SPHINX consortia SATURNIID AND SPHINGID MOTHS AS NOVEL MODELS FOR THE STUDY OF INSECT DIVERSITY AND MACROECOLOGY
14:00-14:30 (20 + 5 Min)	Jeremy Holloway THE HOST-PLANT PROFILE OF THE GEOMETRIDAE IN COMPARISON WITH THOSE OF OTHER OBTECTOMERA FAMILIES IN THE INDO-AUSTRALIAN TROPICS
14:30-15:00	COFFEE BREAK
15:00-15:15 (10 + 3 Min)	<u>Sei-Woong Choi</u> , Jeong-Seop An, Nang-Hee Kim, Bo-Ra Shin, Jae-Young Lee, Beom-Jun Jang POPULATION CHANGES OF GEOMETRID MOTHS ACROSS SOUTHERN MOUNTAINS OF SOUTH KOREA
15:15-15:30 (10 + 3 Min)	<u>Sille Holm</u> , Juhan Javoš, Freerk Molleman, Robert B. Davis, Erki Õunap, Heikki Roininen and Toomas Tammaru NO INDICATION OF HIGH HOST-PLANT SPECIFICITY IN TROPICAL GEOMETRID MOTHS
15:30-15:45 (10 + 3 Min)	<u>Axel Hausmann</u> , Jérôme Morinière, Andreas Floren, Amelie Höcherl & Juliane Diller INVESTIGATING HOSTPLANT RELATIONSHIPS OF PERUVIAN LEPIDOPTERA (PANGUANA) THROUGH DNA BARCODING OF FOGGED CATERpillARS AND THEIR GUT CONTENTS
15:45-16:00 (10 + 3 Min)	<u>Farzaneh Kazerani</u> , Mohammad Ebrahim Farashiani, Mohammad Alazmani, Seyed Naghi Khaleghi, Samira Farahani SURVEY EFFICIENTLY OF SEX PHEROMONE AND LIGHT TRAPS FOR DECREASING DAMAGES OF INVASIVE BOX TREE MOTH IN IRAN
BIODIVERSITY AND OTHER RESEARCH PROJECTS ON GEOMETRIDAE (PART I)	
Chair: Nan Jiang	
16:00-16:15 (10 + 3 Min)	Martin Krüger FOLLOWING DUE PROCESS(ES): REMARKS ON THE OCCURRENCE OF LITHININI IN SOUTHERN AFRICA (GEOMETRIDAE: ENNOMINAE)
16:15-16:30 (10 + 3 Min)	Michael Ochse EXPLORING THE TAXONOMY OF DREPANOID-LIKE GEOMETRIDAE FROM TROPICAL AFRICA
16:30-16:45 (10 + 3 Min)	David C. Lees A BRIEF OVERVIEW OF LEPIDOPTERAN DIVERSITY IN MADAGASCAR HIGHLIGHTING THE MASSIVE COMPLETION GAP
16:45-17:00 (10 + 3 Min)	<u>Robert Trusch</u> , René Herrmann DISTRIBUTION AND LIFE HISTORY OF <i>BOUDINOTIANA TOURANGINII</i> (BERCE, 1870) IN GERMANY AND ITS DIFFERENTIATION FROM <i>B. NOTHA</i> (HÜBNER, 1803) (LEPIDOPTERA, GEOMETRIDAE)
19:00-22:00	Gala Dinner in Rosenstein Palace

Thursday	
BIODIVERSITY AND OTHER RESEARCH PROJECTS ON GEOMETRIDAE (PART II)	
Chair: Axel Hausmann	
09:00-09:15 (10 + 3 Min)	<u>Sei-Woong Choi</u> , Sung-Soo Kim CURRENT KNOWLEDGE OF THE GEOMETRIDAE IN SOUTH KOREA: ARE WE STILL WAITING MORE SPECIES?
09:15-09:30 (10 + 3 Min)	<u>Andrea Sciarretta</u> , Axel Hausmann RECENT ADVANCES IN THE KNOWLEDGE OF THE BIODIVERSITY OF THE TRIBE CASSYMINI IN ETHIOPIA (GEOMETRIDAE, ENNOMINAE)
09:30-09:45 (10 + 3 Min)	<u>Gyula László</u> TAXONOMIC AND FAUNISTIC RESEARCH PROGRAM ON AFRICAN LEPIDOPTERA AT THE AFRICAN NATURAL HISTORY RESEARCH TRUST (ANHRT)
09:45-10:00 (10 + 3 Min)	<u>Pritha Dey</u> , Virendra Prasad. Uniyal, Kailash Chandra & Axel Hausmann PATTERNS ALONG THE ELEVATION AND DNA BARCODING OF GEOMETRIDAE MOTHS FROM THE WESTERN HIMALAYA, INDIA
10:00-10:15 (10 + 3 Min)	<u>Feza Can</u> , Zühal Okyar, Axel Hausmann ADDITIONAL DATA FOR THE GENUS <i>LITHOSTEGE</i> HÜBNER [1825] 1816 (LEPIDOPTERA: GEOMETRIDAE) IN TURKEY WITH DNA-BASED IDENTIFICATIONS
10:15-10:45	COFFEE BREAK
10:45-11:00	<u>CLOSING CEREMONY</u>
11:00-11:10	Next Forum Herbulot
11:30-20:00	POST-CONGRESS TOUR, BLACK-FOREST
Friday	
08:00-19:00	POST-CONGRESS TOUR, CITY TÜBINGEN & BURG HOHENZOLLERN
19:00-21:00	Dinner



Group photo in front of conference hall (Museum am Löwentor)

ALPHABETIC LIST OF PARTICIPANTS

<i>ALEXANDER SCHINTLMEISTER</i> (Dresden, Germany)	<i>LÁSZLÓ, GYULA</i> (Kingsland, United Kingdom)
<i>BARTSCH, DANIEL</i> (Stuttgart, Germany)	<i>LEES, DAVID C.</i> (London, United Kingdom)
<i>BELJAEV, EVGENY A.</i> (Vladivostok, Russia)	<i>LEIDENROTH, SUSANNE</i> (Stuttgart, Germany)
<i>BENÍTEZ, HUGO A.</i> (Arica, Chile)	<i>LEIPNITZ, MICHAEL</i> (Stuttgart, Germany)
<i>BERNHARD, MARLA</i> (Stuttgart, Germany)	<i>LÖBEL, HANS</i> (Sondershausen, Germany)
<i>BIGALK, SONIA</i> (Stuttgart, Germany)	<i>MARTIN, GEOFF</i> (London, Kingdom)
<i>BOLT, DANIEL</i> (Schiers, Switzerland)	<i>MOSE, ALFRED</i> (Porto Alegre, Brazil)
<i>BREHM, GUNNAR</i> (Jena, Germany)	<i>MÜLLER, BERND</i> (Berlin, Germany)
<i>CAN, FEZA</i> (Hatay, Turkey)	<i>MURILLO-RAMOS, LEIDYS</i> (Lund, Sweden)
<i>CHENG, RUI</i> (Beijing, China)	<i>OCHSE, MICHAEL</i> (Munich, Germany)
<i>CHOI, SEI-WOONG</i> (Jeonnam, South Korea)	<i>PETRÁNYI, GERGELY</i> (Budapest, Hungary)
<i>DE PICCIOTTO, KIRA</i> (Stuttgart, Germany)	<i>PETRI, SABINE</i> (Stuttgart, Germany)
<i>DE PRINS, WILLY</i> (Brussels, Belgium)	<i>PLOTKIN, DAVID</i> (Gainesville-Florida, USA)
<i>DE PRINS, JURATE</i> (Brussels, Belgium)	<i>RAJAEI, HOSSEIN</i> (Stuttgart, Germany)
<i>DEY, PRITHA</i> (Dehradun, India)	<i>RATZEL, ULRICH</i> (Karlsruhe, Germany)
<i>ECK, JOSEFINA</i> (Stuttgart, Germany)	<i>RINGGENBURGER, SOPHIE</i> (Stuttgart, Germany)
<i>EDER, JOHANNA</i> (Stuttgart, Germany)	<i>ROUGERIE, RODOLPHE</i> (Paris, France)
<i>FRITSCH, DIETER</i> (Grenzach-Wyhlen, Germany)	<i>SCHAARSCHMIDT, MICHAEL</i> (Leipzig, Germany)
<i>GUARAGNA, SILVIA</i> (Munich, Germany)	<i>SCHÄUFFELE, CHRIS</i> (Hohenheim, Germany)
<i>GÖRN, SEBASTIAN</i> (Stuttgart, Germany)	<i>SCHWABE, NOA LEONIE</i> (Hohenheim, Germany)
<i>GOSPOCIC, MIRELA</i> (Stuttgart, Germany)	<i>SCHWEIZER, TANJA</i> (Stuttgart, Germany)
<i>HAAS, MICHAEL</i> (Stuttgart, Germany)	<i>SCIARRETTA, ANDREA</i> (Campobasso, Italy)
<i>HAUSMANN, AXEL</i> (Munich, Germany)	<i>SCOBLE, MALCOLM J.</i> (London, United Kingdom)
<i>HOEING, KARL</i> (Stuttgart, Germany)	<i>SIHVONEN, PASI</i> (Helsinki, Finland)
<i>HOLLOWAY, JEREMY</i> (London, United Kingdom)	<i>SILBERMANN, DOROTHEE</i> (Stuttgart, Germany)
<i>HOLLOWAY, PHILLIPA</i> (London, United Kingdom)	<i>SINNER, CLAUDE</i> (Linkenheim, Germany)
<i>HOLM, SILLE</i> (Tartu, Estonia)	<i>SKOU, PEDER</i> (Vester Skernige, Denmark)
<i>HOLZHAUSE, CHANTAL</i> (Stuttgart, Germany)	<i>SOMMERER, MANFRED</i> (Munich, Germany)
<i>JIANG, NAN</i> (Beijing, China)	<i>STADIE, DIRK</i> (Lutherstadt Eisleben, Germany)
<i>KAMM, DONATA</i> (Hohenheim, Germany)	<i>STAUDE, HERMANN</i> (Magaliesburg, South Africa)
<i>KARISCH, TIMM</i> (Dessau-Roßlau, Germany)	<i>STAUDE, LOUISA</i> (Magaliesburg, South Africa)
<i>KAZERANI, FARZANEH</i> (Tehran, Iran)	<i>STRÖHLE, MANFRED</i> (Weiden, Germany)
<i>KLAUSEN, ANNE-GRETE</i> (Vester Skernige, Denmark)	<i>STÜNING, DIETER</i> (Bonn, Germany)
<i>KLAWITTER, JULIA</i> (Stuttgart, Germany)	<i>TAUTEL, CLAUDE</i> (Paris, France)
<i>KÖNIG, CHRISTIAN</i> (Hohenheim, Germany)	<i>TAMMARU, TOOMAS</i> (Tartu, Estonia)
<i>KOPP, ANDREAS</i> (St. Margarethen, Switzerland)	<i>TRUSCH, ROBERT</i> (Karlsruhe, Germany)
<i>KRÜGER, MARTIN</i> (Pretoria, South Africa)	<i>WANKE, DOMINIC</i> (Stuttgart, Germany)
<i>KÜHNERTOVA, LENKA</i> (Stuttgart, Germany)	<i>WILDFEUER, JULIA</i> (Munich, Germany)
<i>KROGMANN, LARS</i> (Stuttgart, Germany)	



Reception desk, Chantal Holzhaue, Sabine Petri, Hossein Rajaei



Susanne Leidenroth

Ice-breaking: Museum am Löwentor







Welcome Message and Opening address by **Prof. Dr. Johanna Eder**
(Director of the State Museum of Natural History Stuttgart),



Organizer, **Hossein Rajaei** introduced the "State Museum of Natural History Stuttgart" and gave a historical overview of the museum. Then he reviewed the program of 10th Forum Herbulot.



Lars Krogmann: **WILLI HENNIG AND THE SYNTHESIS OF PHYLOGENETICS AND TAXONOMY**



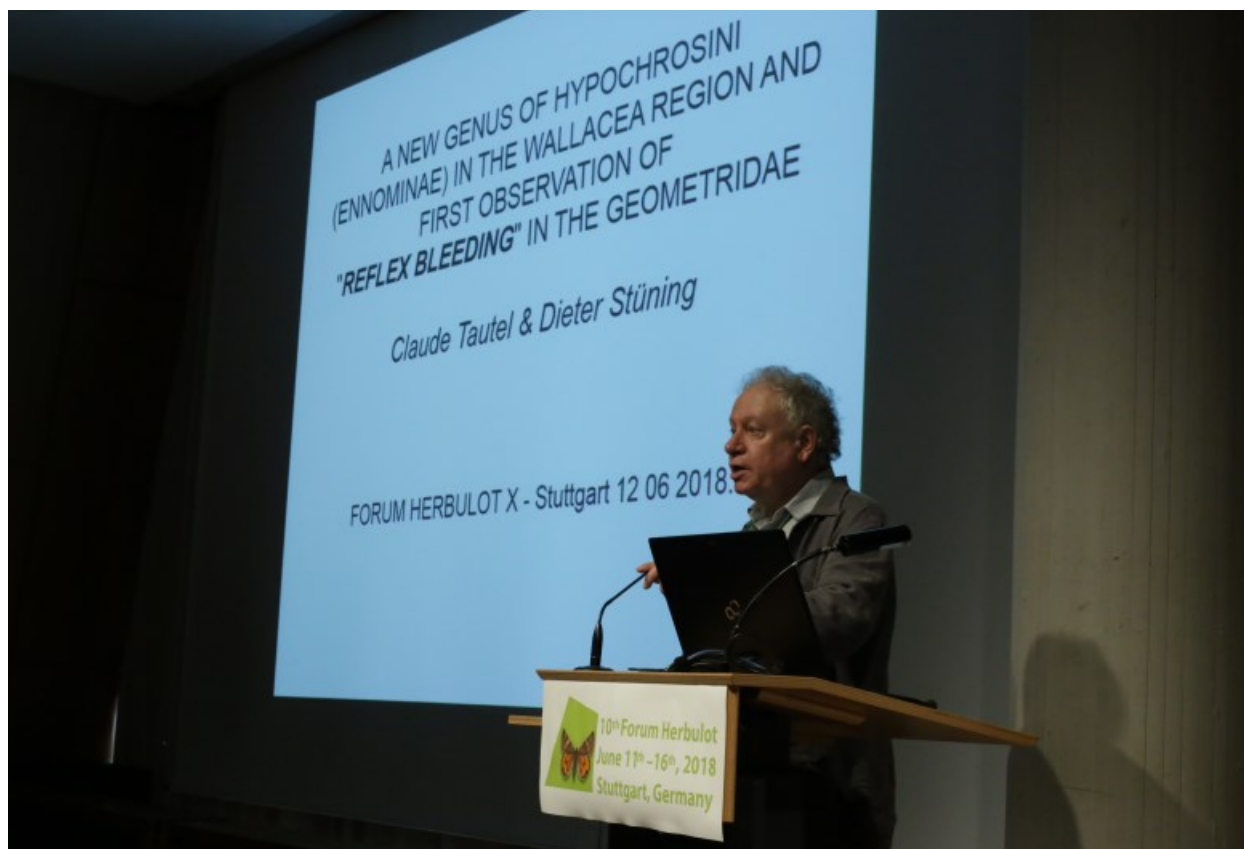
Malcolm J. Scoble: **GEOMETRID TAXONOMY: WILL PAST AND PRESENT APPROACHES MEET FUTURE NEEDS?**



Julia Wildfeuer: **MUSEOMICS AND MICRO-CT: NON-DESTRUCTIVE MICRO-CT APPROACH FOR FEMALE LEPIDOPTERA AT THE EXAMPLE OF THE GENUS PRASINOCYMA (LEPIDOPTERA, GEOMETRIDAE)**



Axel Hausmann : **UPDATES ON THE GERMAN CAMPAIGN FOR DNA BARCODING OF LEPIDOPTERA AND ON THE EUROPEAN AND GLOBAL CAMPAIGNS FOR GEOMETRID BARCODING**



Claude Tautel: **A NEW GENUS OF HYPOCHROSINI (GEOMETRIDAE, ENNOMINAE) FROM THE PHILIPPINES AND SULAWESI, WITH DESCRIPTION OF THREE NEW SPECIES AND ONE NEW SUBSPECIES, AND THE FIRST OBSERVATION OF “REFLEX BLEEDING” IN THE GEOMETRIDAE FAMILY**



Dominic Wanke: **THE ENIGMATIC *TRIPHOSA* GENUS: TAXONOMIC REVISION AND THREE NEW SPECIES FROM MIDDLE EAST AND CENTRAL ASIA (LEPIDOPTERA, GEOMETRIDAE, LARENTIINAE)**



Hugo A. Benítez: **WING SHAPE CAN TELL US STORIES: THE USE OF GEOMETRIC MORPHOMETRICS IN LEPIDOPTERA WINGS**



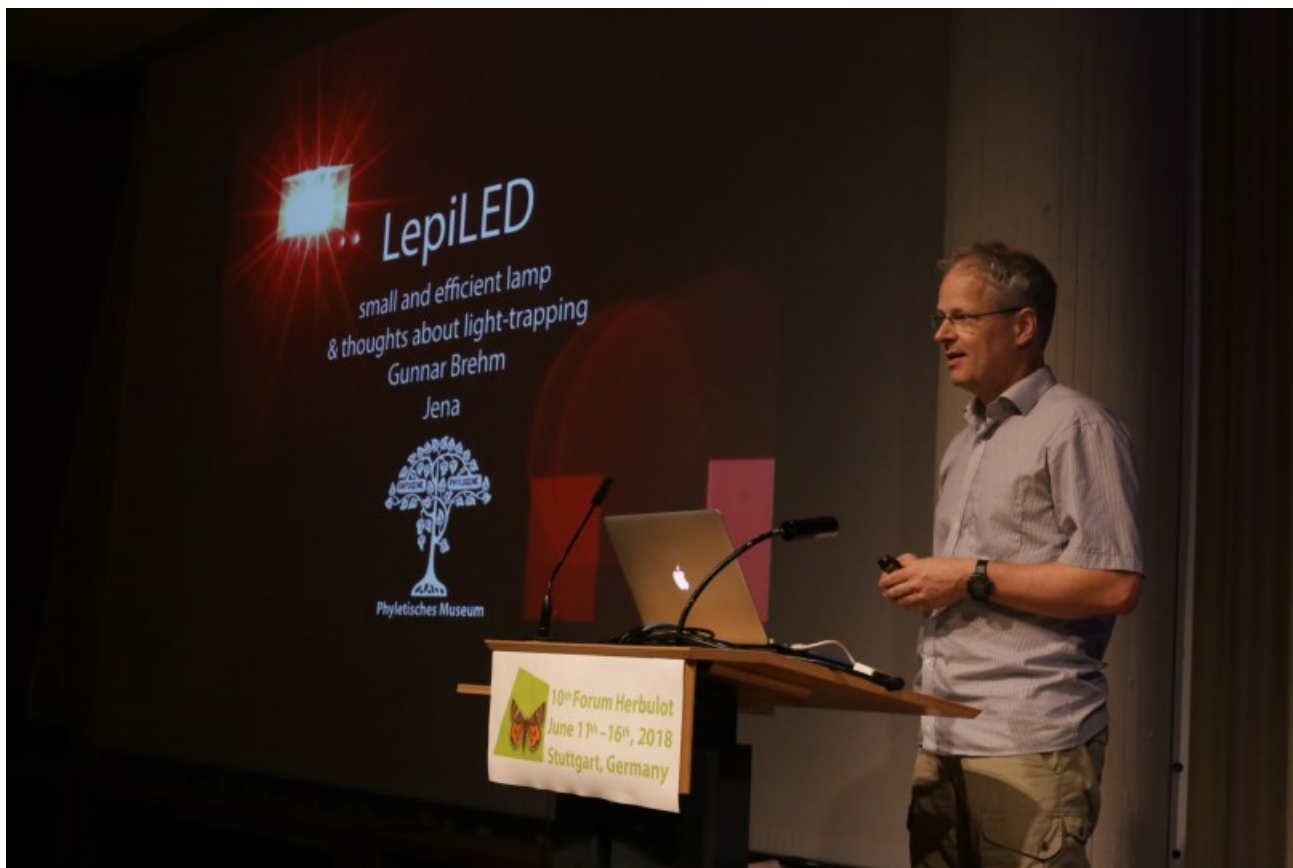
Hans Löbel: **“GEOMETRIDAE MUNDI”, A NEW WAY OF SUMMARIZING THE DIVERSITY OF GLOBAL GEOMETRID SPECIES**



Claude Sinner: **INTEGRATION OF GEOMETRIDAE MUNDI INTO TAXONBENCH®**



Daniel Bolt: **THE GEOMETRID MOTHS OF SWITZERLAND, ANNOUNCEMENT PUBLICATION**



Gunnar Brehm: **A NEW EFFICIENT LAMP TO COLLECT LEPIDOPTERA AND GENERAL REMARKS ON LIGHT-TRAPPING**



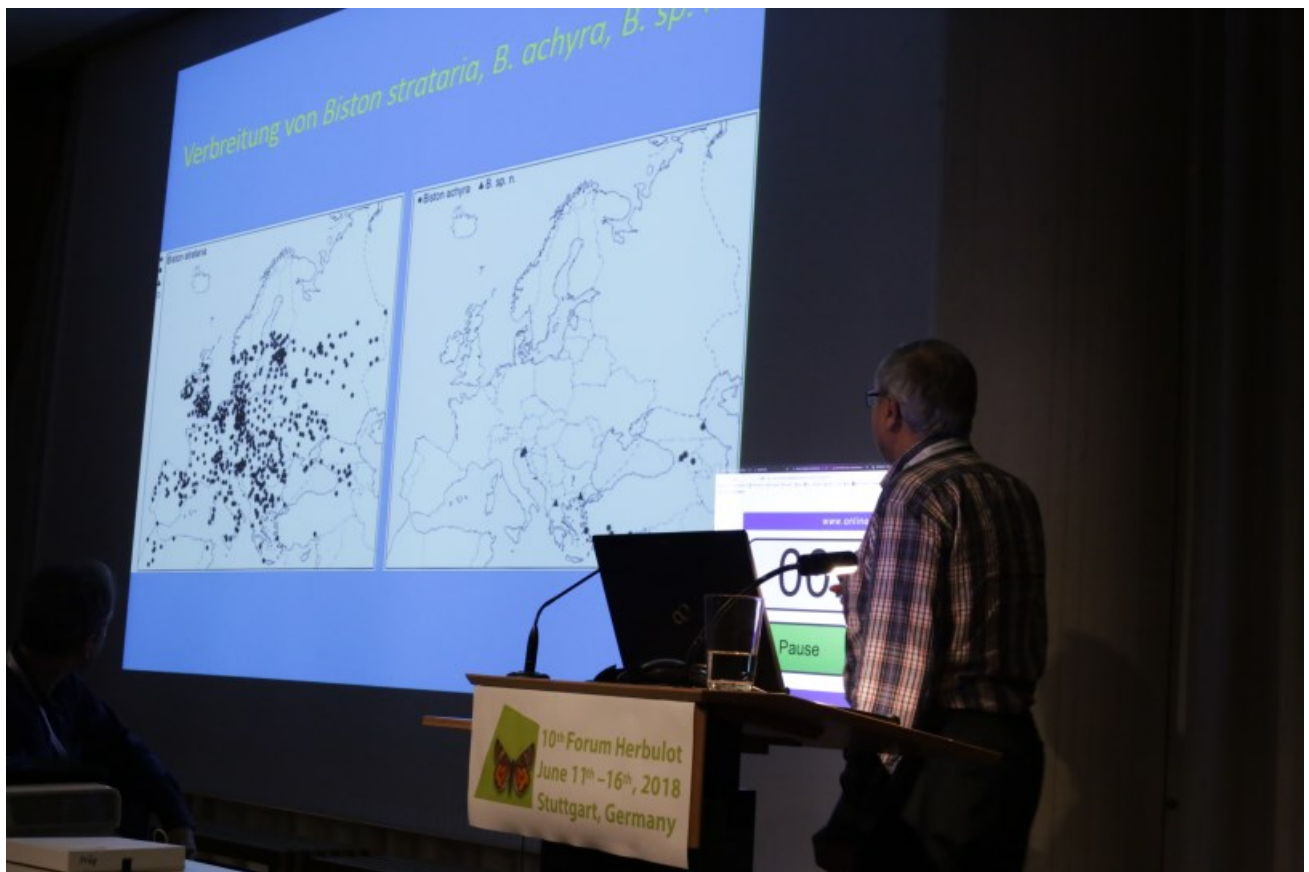
Geoff Martin: **THE DIGITISATION OF MADAGASCAN TYPE SPECIMENS AT THE NATURAL HISTORY MUSEUM, LONDON, UK WITH SPECIAL REFERENCE TO THE GEOMETRIDAE**



Christian König: **UNLOCKING GENOMIC TREASURE CHESTS – HIGH-THROUGHPUT COLLECTION GENOMICS**



Dorothee Silbermann: **INTRODUCTION TO THE PROJECT: BUTTERFLY ALARM - NATURE IN DANGER; A DIGITAL PRINT PROJECT**



Bernd Müller: NEW SPECIES OF THE GENUS BISTON FROM THE BALKAN PENINSULA (LEPIDOPTERA, GEOMETRIDAE, ENNOMINAE)



Dominic Wanke: CONFUSING SYNTYPES – APPEARING ISSUES DURING INVESTIGATION AND ITS SOLUTION



Chantal Holzhausen: A CASE OF GYNANDROMORPHY IN GEOMETRID MOTH



Sille Holm: GENUS *CLEORA* (GEOMETRIDAE, ENNOMINAE) IN TROPICAL UGANDA



Timm Karisch: NOTES ON THE DISTRIBUTION, BIOLOGY AND HABITATS OF SCOPULA SEPARATA ON ST HELENA ISLAND



Pasi Sihvonen: LARGE-SCALE SCIENTIFIC PROJECTS: WORKSHOP ON PARTNER SEARCH



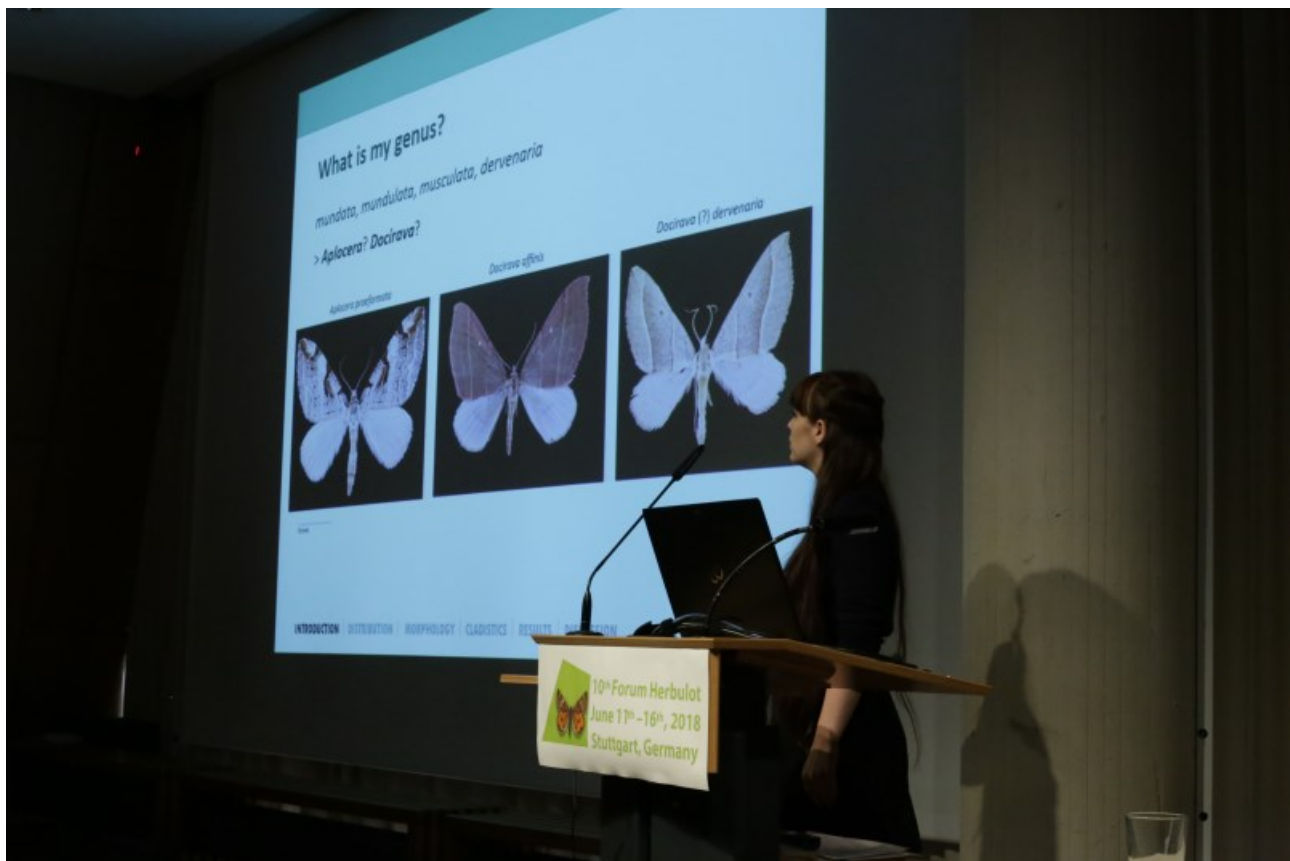
Poster session



Toomas Tammaru: **MAKING USE OF GEOMETRID PHYLOGENIES: COMPARATIVE ANALYSES IN EVOLUTIONARY ECOLOGY**



Pasi Sihvonen: **SHAKING THE TREE: REVISED PHYLOGENY AND CLASSIFICATION OF THE GEOMETRID SUBFAMILY STERRHINAE**



Chantal Holzhausen: **MORPHOLOGICAL BASED PHYLOGENY OF THE TRIBE CHESIADINI (LEPIDOPTERA, GEOMETRIDAE, LARENTIINAE)**



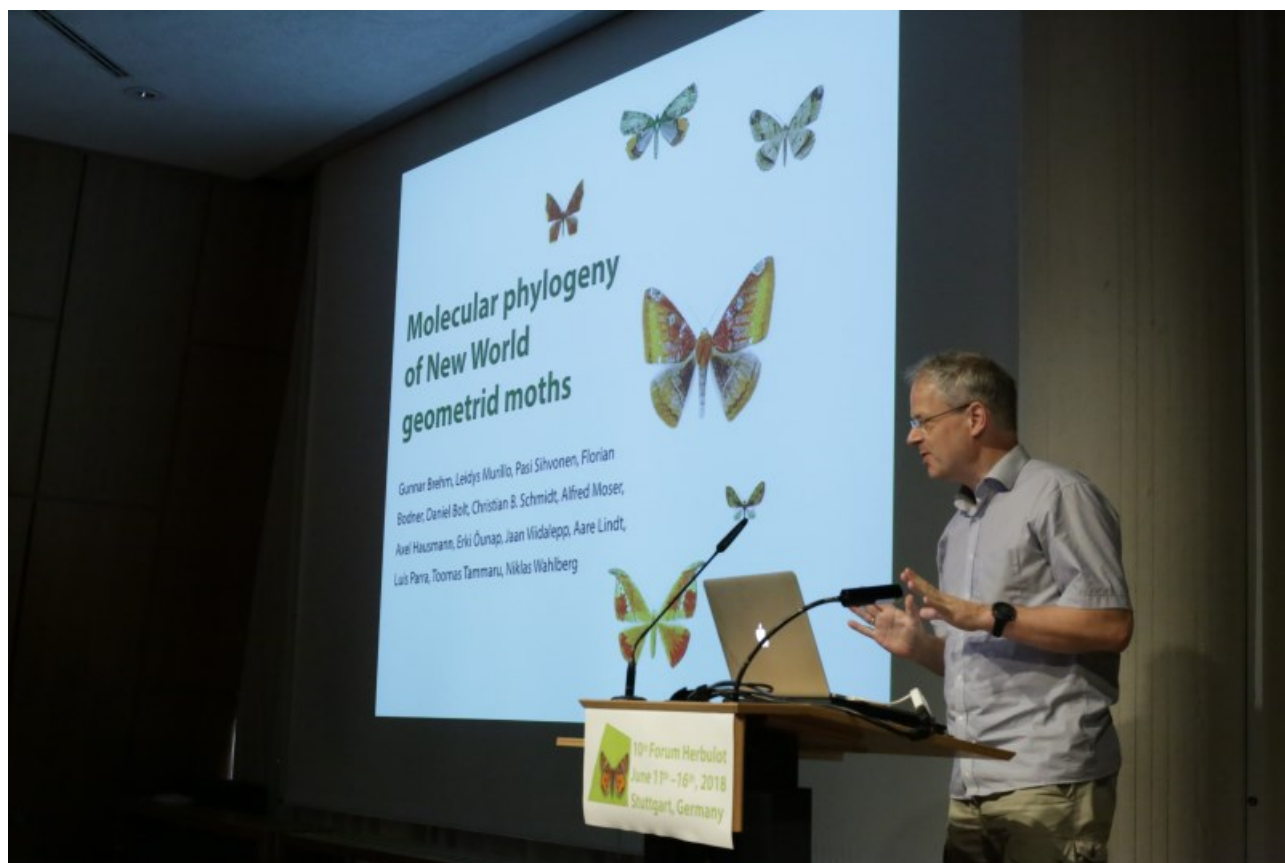
Evgeny A. Beljaev: **THE GENUS *HYPOMECIS* (LEPIDOPTERA: GEOMETRIDAE, ENNOMINAE): ADVANCES TO THE PHYLOGENETIC STRUCTURE AND RELATIONSHIPS IN BOARMIINI**



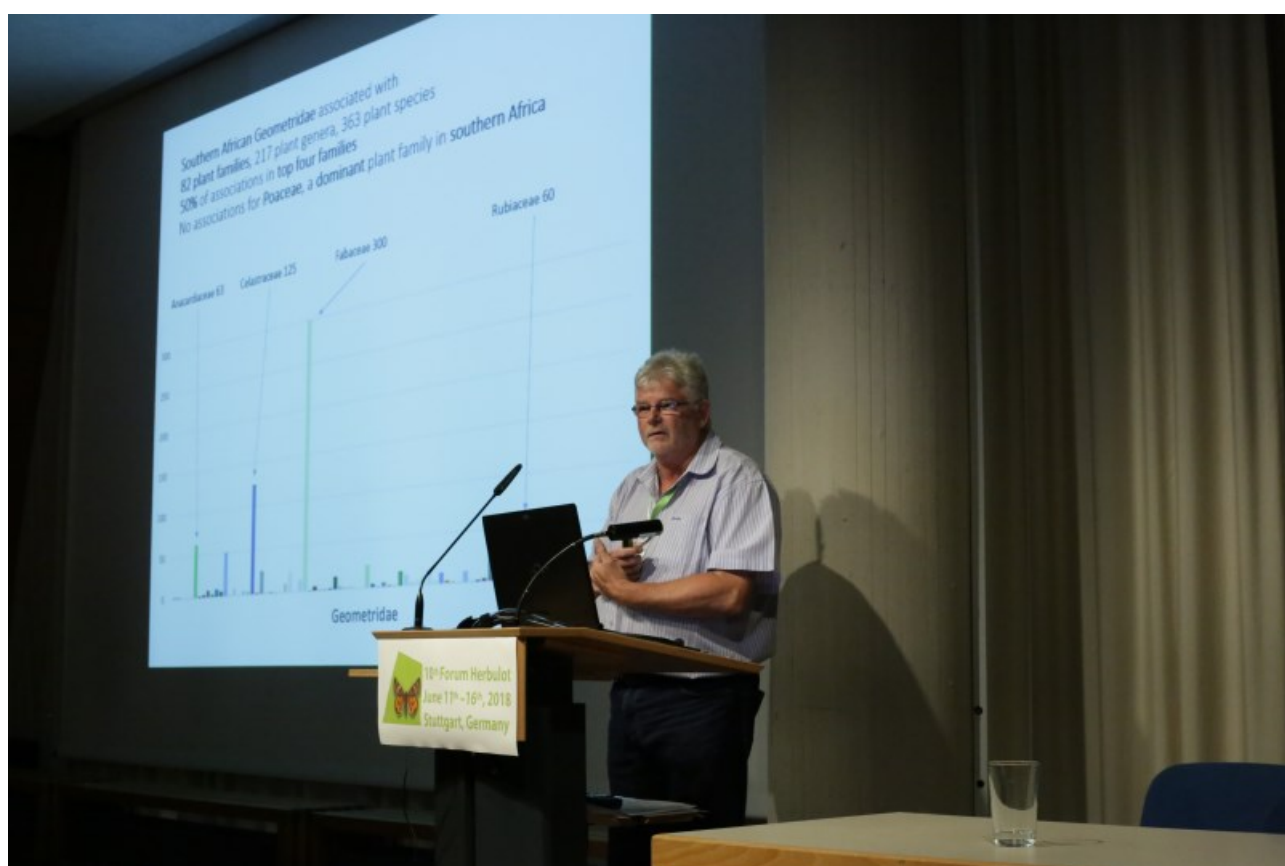
Leidys Murillo-Ramos: **MOLECULAR SYSTEMATICS PROVIDE NEW INSIGHTS TO THE TAXONOMY AND RELATIONSHIPS OF THE MAJOR LINEAGES OF GEOMERID MOTH (LEPIDOPTERA: GEOMETRIDAE)**



David Plotkin: **PHYLOGENY OF THE EMERALD MOTHS (GEOMETRIDAE: GEOMETRINAE)**



Gunnar Brehm: **MOLECULAR PHYLOGENY OF NEW WORLD GEOMETRID MOTHS (LEPIDOPTERA: GEOMETRIDAE)**



Hermann Staude: **A PHYLOGENETIC COMPARISON OF AFROTROPICAL GEOMETRIDAE AND THEIR HOST-PLANTS**



Rui Cheng: **THE RESEARCH STATUS OF PHYLOGEOGRAPHY AND BIODIVERSITY OF LEPIDOPTERA IN CHINA; CASE STUDIES OF GEOMETRIDAE**



Nan Jiang: **RECENT PROGRESS ON TAXONOMY AND PHYLOGENY OF THE FAMILY GEOMETRIDAE**



Rodolphe Rougerie: **SATURNIID AND SPHINGID MOTHS AS NOVEL MODELS FOR THE STUDY OF INSECT DIVERSITY AND MACROECOLOGY**



Jeremy Holloway (presented by Malcolm Scoble): **THE HOST-PLANT PROFILE OF THE GEOMETRIDAE IN COMPARISON WITH THOSE OF OTHER OBTECTOMERA FAMILIES IN THE INDO-AUSTRALIAN TROPICS**



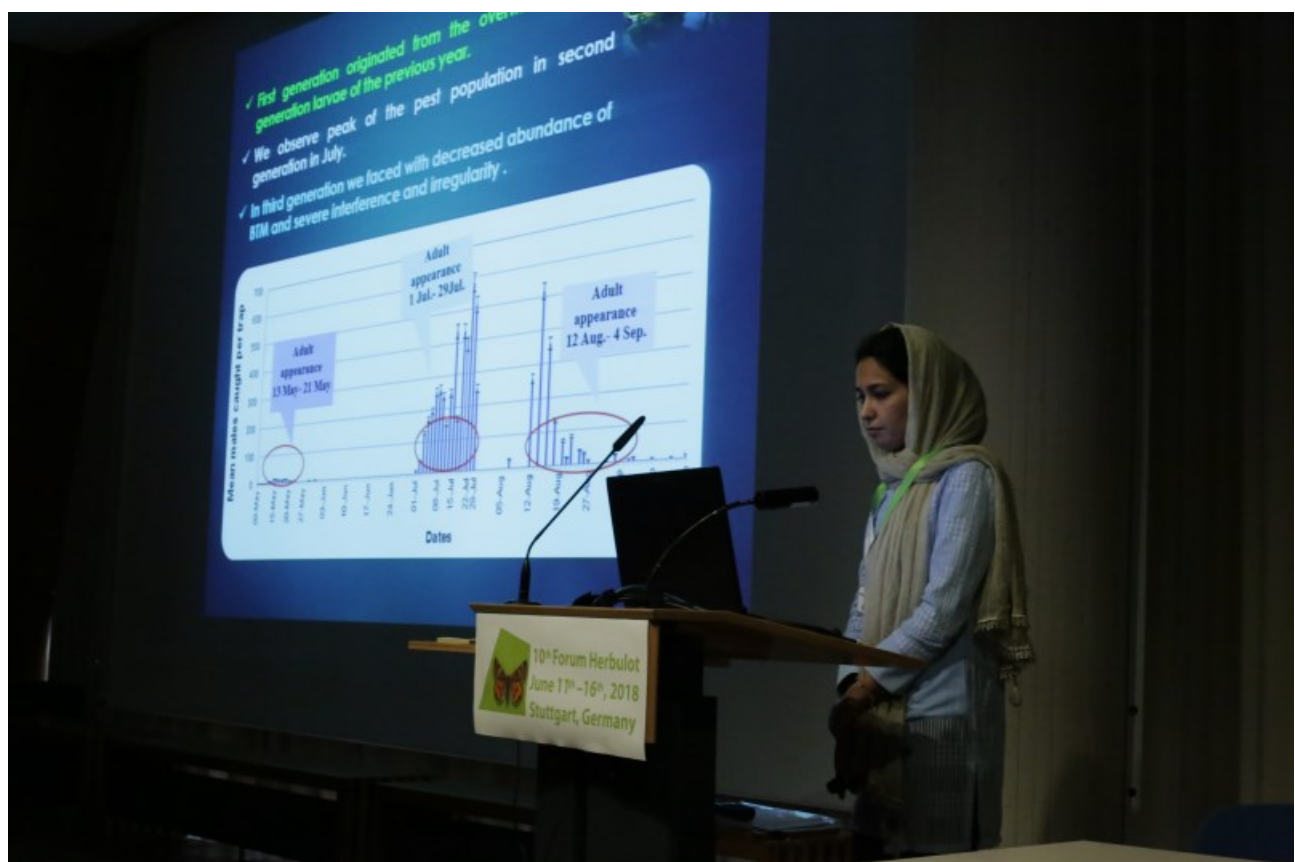
Sei-Woong Choi: **POPULATION CHANGES OF GEOMETRID MOTHS ACROSS SOUTHERN MOUNTAINS OF SOUTH KOREA**



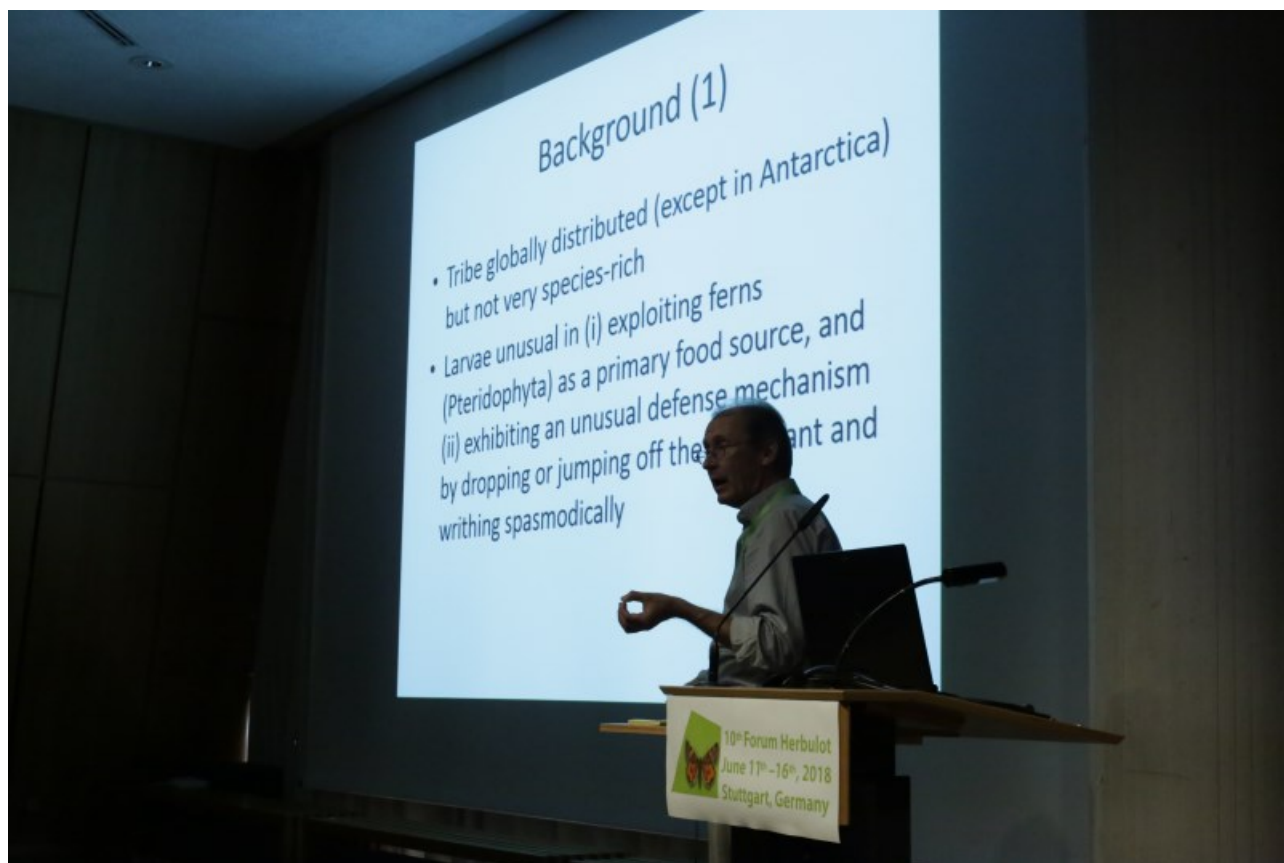
Sille Holm: **NO INDICATION OF HIGH HOST-PLANT SPECIFICITY IN TROPICAL GEOMETRID MOTHS**



Axel Hausmann: INVESTIGATING HOSTPLANT RELATIONSHIPS OF PERUVIAN LEPIDOPTERA (PANGUANA) THROUGH DNA BARCODING OF FOGGED CATERpillARS AND THEIR GUT CONTENTS



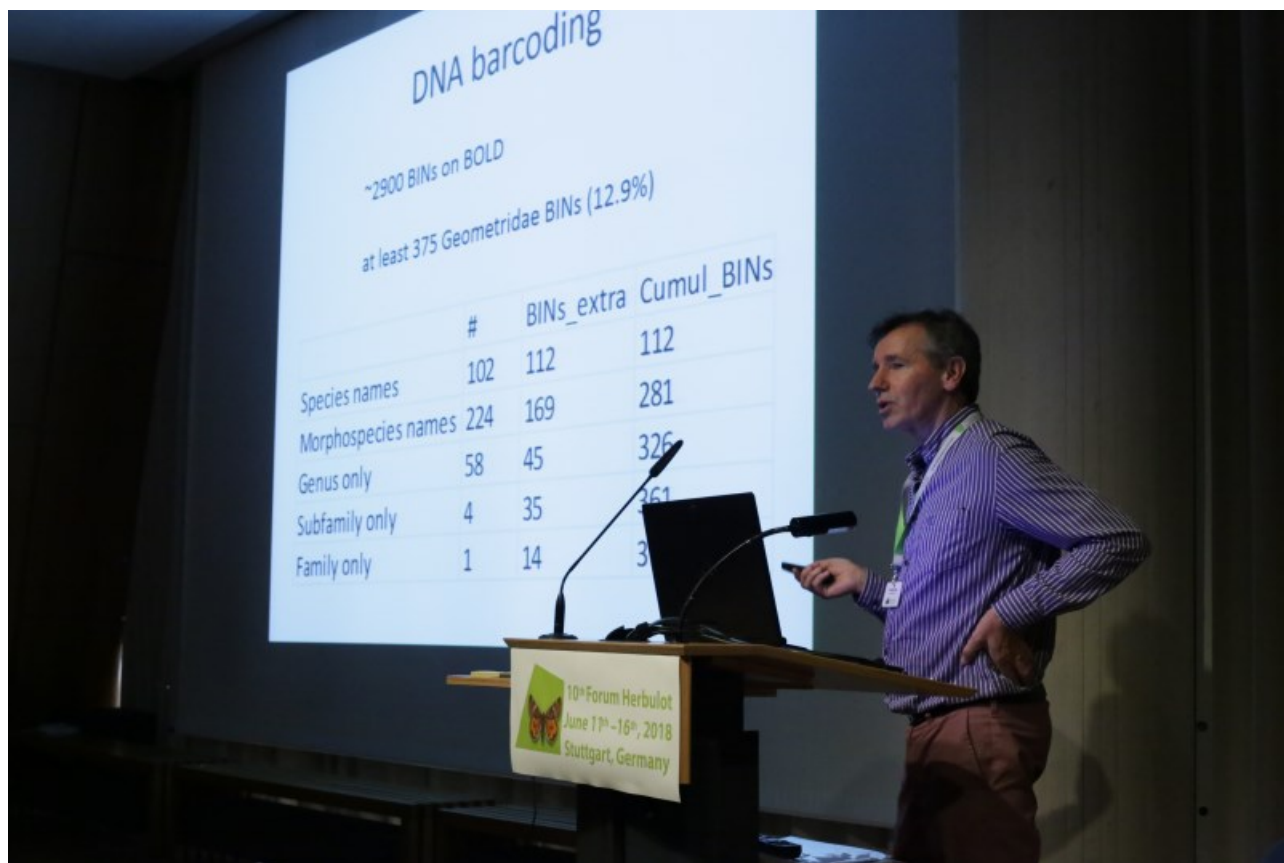
Farzaneh Kazerani: SURVEY EFFICIENTLY OF SEX PHEROMONE AND LIGHT TRAPS FOR DECREASING DAMAGES OF INVASIVE BOX TREE MOTH IN IRAN



Martin Krüger: **FOLLOWING DUE PROCESS(ES): REMARKS ON THE OCCURRENCE OF LITHININI IN SOUTHERN AFRICA (GEOMETRIDAE: ENNOMINAE)**



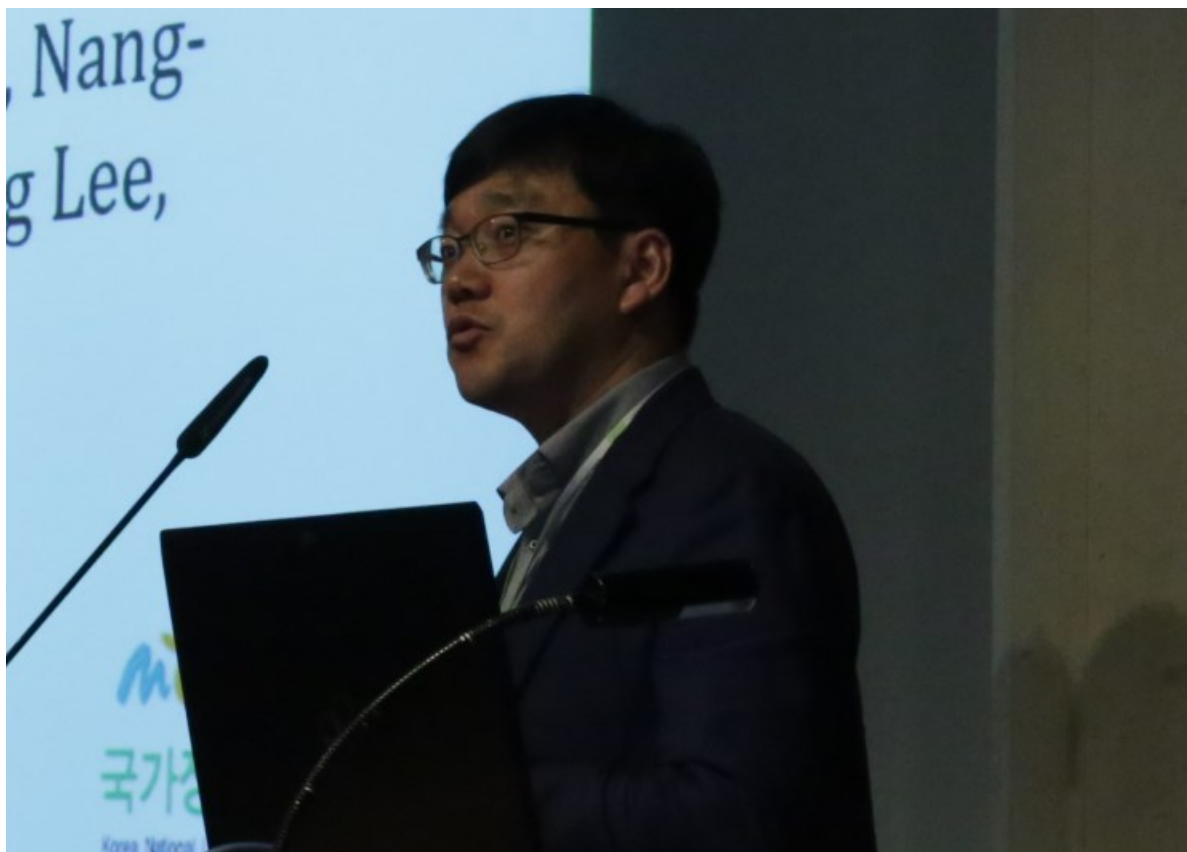
Michael Ochse: **EXPLORING THE TAXONOMY OF DREPANOID-LIKE GEOMETRIDAE FROM TROPICAL AFRICA**



David C. Lees: A BRIEF OVERVIEW OF LEPIDOPTERAN DIVERSITY IN MADAGASCAR HIGHLIGHTING THE MASSIVE COMPLETION GAP



Robert Trusch: DISTRIBUTION AND LIFE HISTORY OF *BOUDINOTIANA TOURANGINII* (BERCE, 1870) IN GERMANY AND ITS DIFFERENTIATION FROM *B. NOTHA* (HÜBNER, 1803) (LEPIDOPTERA, GEOMETRIDAE)



Sei-Woong Choi: **CURRENT KNOWLEDGE OF THE GEOMETRIDAE IN SOUTH KOREA:
ARE WE STILL WAITING MORE SPECIES?**



Andrea Sciarretta: **RECENT ADVANCES IN THE KNOWLEDGE OF THE BIODIVERSITY OF
THE TRIBE CASSYMINI IN ETHIOPIA (GEOMETRIDAE, ENNOMINAE)**



Gyula László: **TAXONOMIC AND FAUNISTIC RESEARCH PROGRAM ON AFRICAN LEPIDOPTERA AT THE AFRICAN NATURAL HISTORY RESEARCH TRUST (ANHRT)**



Pritha Dey: **PATTERNS ALONG THE ELEVATION AND DNA BARCODING OF GEOMETRIDAE MOTHS FROM THE WESTERN HIMALAYA, INDIA**



Feza Can: **ADDITIONAL DATA FOR THE GENUS *LITHOSTEGE* HÜBNER [1825] 1816 (LEPIDOPTERA: GEOMETRIDAE) IN TURKEY WITH DNA-BASED IDENTIFICATIONS**

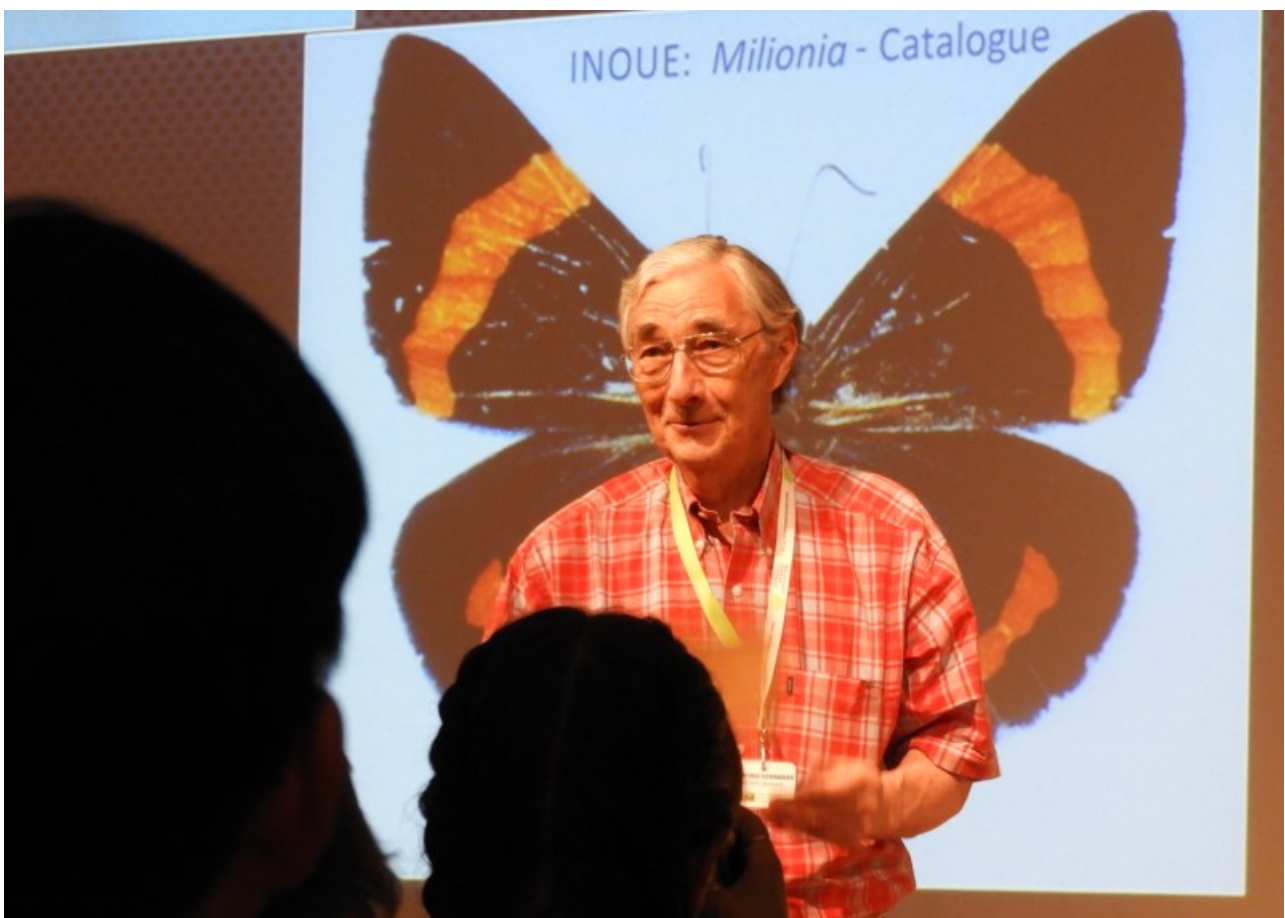


Closing ceremony: on behalf of all Herbulotians, Axel Hausmann presented the certificate of the honorary membership to Manfred Sommerer

CLOSING CEREMONY



Manfred Sommerer, thanking participants and organizers of Forum Herbulot for the Honory Membership





Gala Dinner in Rosenstein Palace



Louisa and Hermann Staude official dressed
(African style) for the Gala Dinner



At entrance of Rosenstein Palace, Feza Can, Jurate de Prins, Willy de Prins



In front of Rosenstein Palace, Hossein Rajaei, Axel Hausmann, Silvia Guaragna, Peder Skou



In front of Rosenstein Palace, Manfred Sommerer, Malcolm Scoble, Hans Löbel, Evgeny Beljaev



In front of Rosenstein Palace, Rui Cheng, Nan Jiang, Geoff Martin, Leidys Murillo-Ramos, Pritha Dey, David Lees (background), Pasi Sihvonen



Gala Dinner in Rosenstein Palace



In front of Rosenstein Palace, Geoff Martin and invited Jazz Band



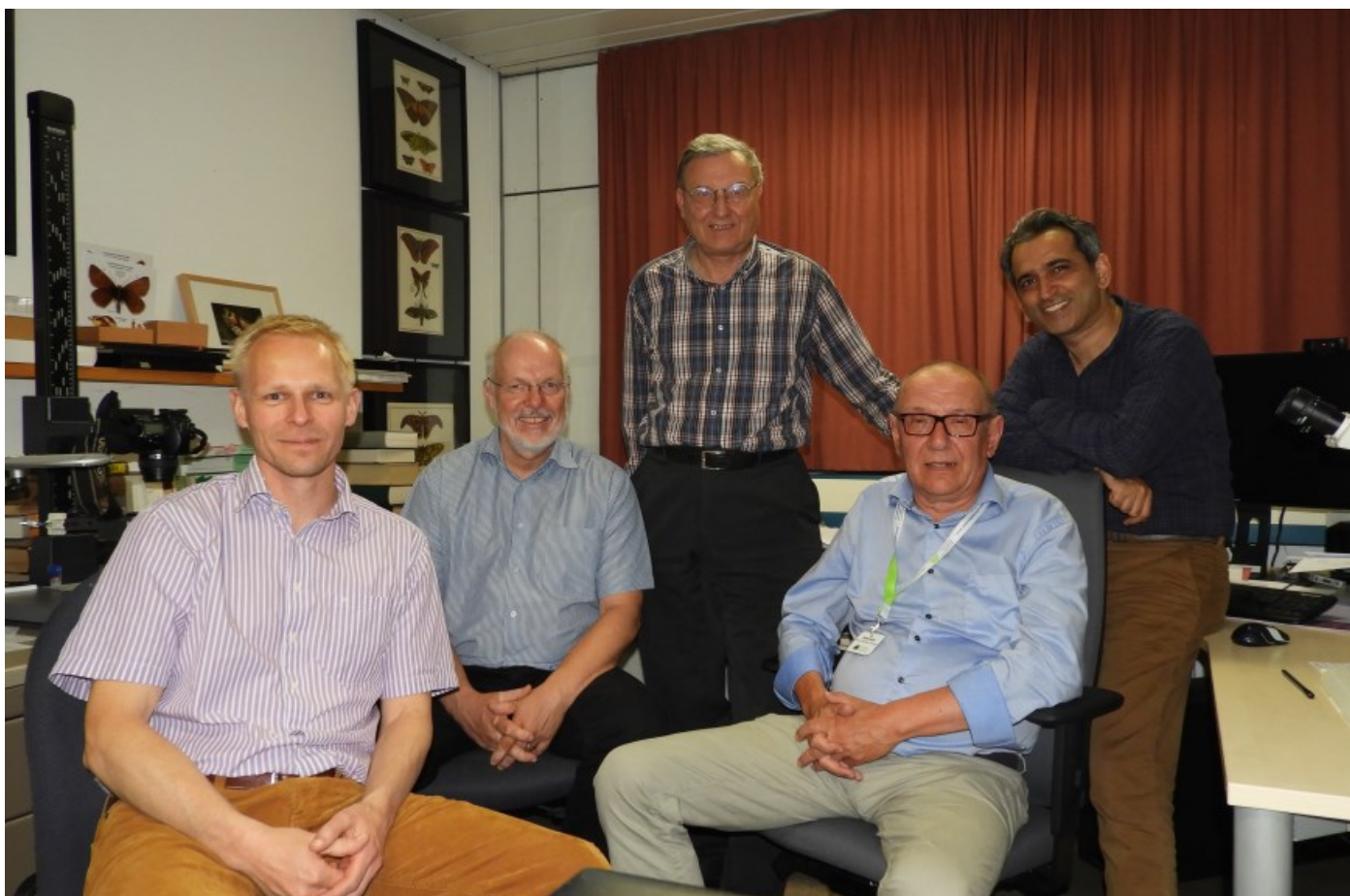
Around the table: Christian König, Chantal Holzhaus, Robert Trusch, Andreas Kopp, Dieter Fritsch, Alfred Moser



In front of Rosenstein Palace, Rui Cheng, Nan Jiang, Feza Can, Julia Wildfeuer



Group photo in front of Rosenstein Palace



Meeting of authors of Geometridae moths of Europe-vol. 6 in State Museum of Natural history Stuttgart.
From left to right: Pasi Sihvonen, Axel Hausmann, Bernd Müller, Peder Skou, Hossein Rajaei

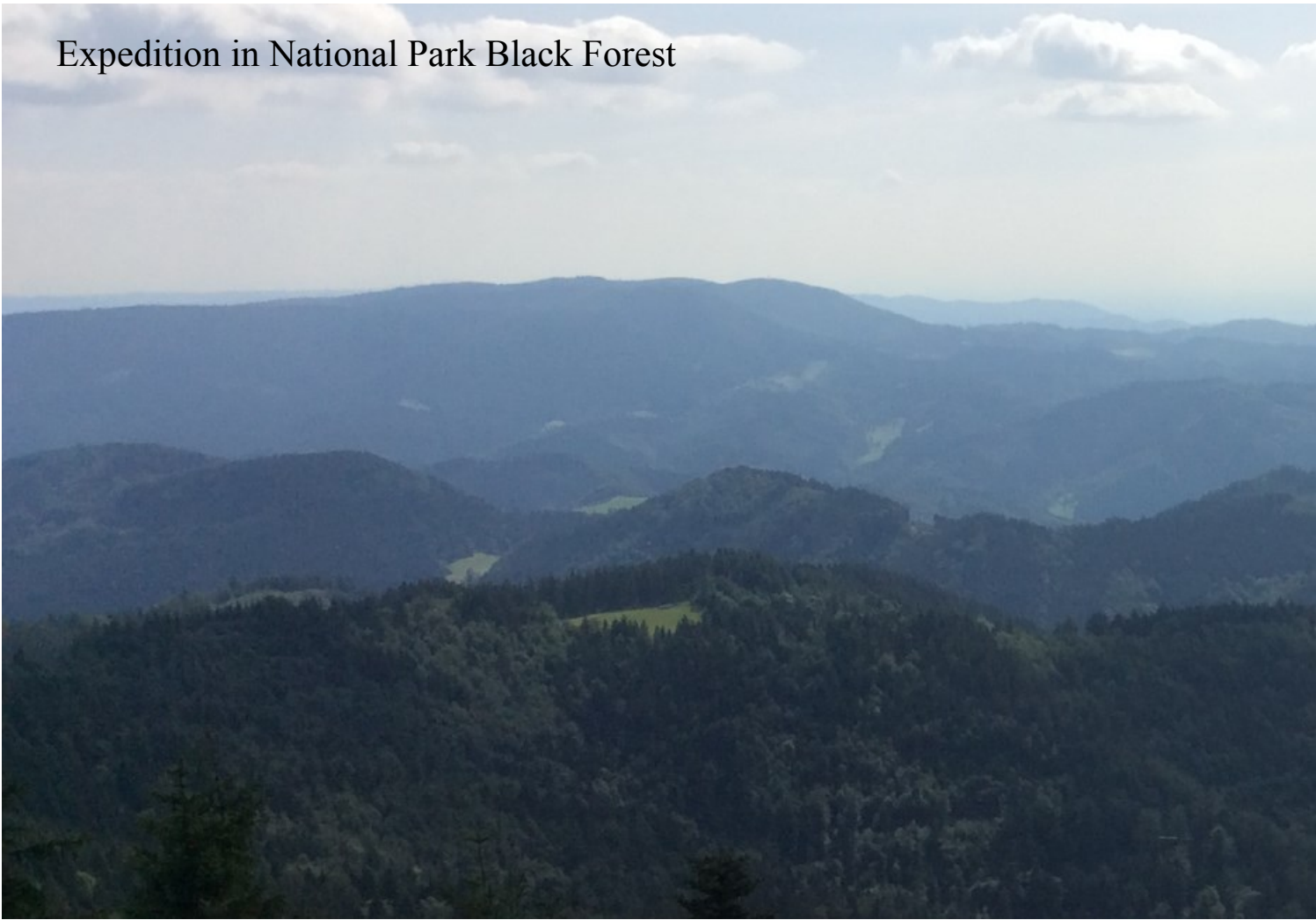
Short report on the publication progress of the last volume of „The Geometrid Moths of Europe“ (Vol. 6)

This last, sixth volume of the book series „The Geometrid Moths of Europe“ will soon be published by the Dutch publisher in co-authorship of Bernd Müller, Sven Erlacher, Axel Hausmann, Hossein Rajaei, Pasi Sihvonen & Peder Skou.

The text part is ready (currently under linguistic editing) and deals with 200 European geometrid species, i.e. Ennominae II (mainly Gnophini and Boarmiini) and 21 species which belong to subfamilies of previous volumes and which recently have been added to the European fauna after publication of the volumes 1 to 5. Maps are also ready, and colour plates and genitalia plates will soon be completed. The volume will contain also a complete, updated checklist of all geometrid moths of Europe and adjacent countries. The authors expect that the volume will comprise approx. 1,000 pages.

The publication of volume 6 is expected in spring 2019.

Expedition in National Park Black Forest









Trip to City Tübingen and Burg Hohenzollern





Group photo in front of the municipal building of the City Tübingen



Group photo in front of the Burg Hohenzollern



Organization team of the 10th Forum Herbulot: (left to right) Daniel Bartsch, Chantal Holzhaue, Tobias Wilhelm, Sebastian Görn, Dominic Wanke, Sabine Petri, Hossein Rajaei. (front row, left to right): Susanne Leidenroth, Tanja Schweizer, Sonia Bigalk

Den Flatterern auf der Spur

Rund 80 Experten versammeln sich bis zum 16. Juni zur internationalen Schmetterlingstagung im Naturkundemuseum am Löwentor.

■ **S-NORD**
In fünf Tagen und rund 50 Vorträgen werden Neuigkeiten bezüglich der Lebensweise, Evolution und globalen Ausbreitung der Tiere von Forschern aus 20 Ländern präsentiert und diskutiert.
Im Fokus steht dabei vor allem die zweitgrößte Schmetterlingsfamilie der Geometridae, auch bekannt als Spanner. Sie umfasst derzeit weltweit 23 000 beschriebene Arten. Die Tagung findet alle zwei Jahre in verschiedenen Ländern statt und ist eine große und wichtige Plattform für die Expertinnen und Experten, um neue Forschungsansätze und -projekte zu diskutieren und sich international weiter zu vernetzen.
Ziel der Insektenkundler ist es, die Schmetterlinge weltweit zu erfassen und somit einen Beitrag zu Biodiversitätsforschung zu leisten.
Der Schmetterlingsexperte des Naturkundemuseums Stuttgart und Organisator der Tagung, Dr. Hossein Rajaei, freut sich besonders über das große Interesse der internationalen Kollegen an der Schmetterlingsammlung des Hauses. Zahlreiche Wissenschaftler haben sich angekündigt. „Das zeigt die Qualität der Sammlungs- und Forschungstätigkeiten am

Stuttgarter Museum. Ich bin sehr gespannt auf den Austausch mit den Kollegen und die Ergebnisse der Tagung“, so Rajaei. Neben den rein fachlichen Diskussionen bleibt auch Zeit für interdisziplinäre Nachwuchsprojekte.
So entwerfen Designstudierende der Kunstakademie Stuttgart derzeit - wissenschaftlich unterstützt von Dr. Rajaei - Druckmuster für Seidenhalstücher, deren Motivgeber und Inspiration die Schmetterlingsammlung des Museums ist. Die Ergebnisse der Arbeiten werden im Rahmen der Tagung präsentiert. Die Tagung wird gefördert von der Deutschen Forschungsgemeinschaft.

INFO
Mehr erfahren
Weitere Informationen unter www.naturkundemuseum-bw.de.



Die Spanner-Art Purpurweiden-Jungfernkind gibt es nicht nur in Frankreich, sondern auch in mehreren europäischen Ländern.
Foto: z/ SMNK, Robert Trusch

Media report of the 10th Forum Herbulot in Stuttgarter Wochenblatt, 13.6.2018

Geometrid Biodiversity – a Story essentially told on the Mountain

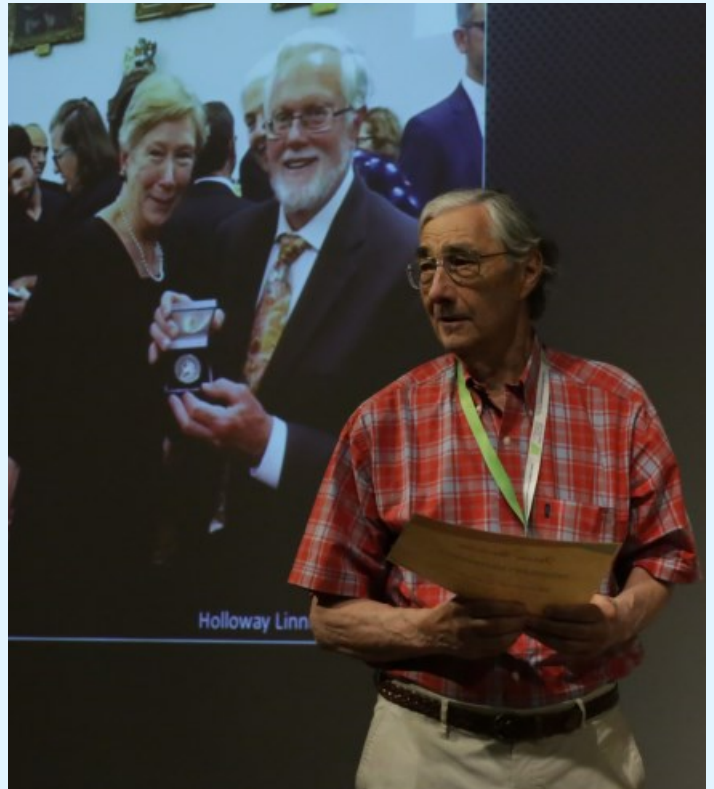
An appreciation

Manfred Sommerer

The *International Day for Biological Biodiversity*, celebrated each year on 22 May, is a UN-sanctioned event for the promotion of biodiversity issues within the goals of sustainable development on our globe. The *UN Convention on Biological Diversity* was adopted on 22 May 1992 at the Rio de Janeiro *Earth Summit* and came into force on 29 December 1993 (the United States of America having signed but never ratified the treaty). There was an *International Year of Biodiversity* in 2010 and we are now living in the *UN Decade of Biodiversity* from 2011 until 2020. The Biodiversity Day in 2017 dealt with *Biodiversity and sustainable Tourism*.

Last month, on 22 May 2018, the *International Day for Biological Biodiversity* focused on *25 Years of Action for Biodiversity*. Are we now closer to the postulated *world we want* and to a *future for all* ? In Germany, and probably in most of Europe, a dramatic loss of insects in quantity and species was recently proclaimed in the news. Scientists warn against forthcoming „silent springs“ if the shrinking biodiversity cannot be quickly brought back to „normal“. Twenty-five years of „action“ for biodiversity – and no better perspective?

Participants to the *Forum Herbulot* may be interested primarily in the status of the biodiversity of the *Geometridae* with about 24,000 known species in all regions of the world. The contents of a light-trap in a garden in Bavaria, shows that there does not (yet) seem to be a dramatic loss of geometrid species, but their biodiversity in a rural garden has always been a limited one and nobody would expect all 378 species of *Geometridae* actually recorded for Bavaria to be found at such a restricted locality. Quite different are the results in other Bavarian habitats and reserves, which have been observed for many years, some having been taken into account in corresponding red lists: More often than not, specialized „rare“ species have no longer been found for years and even some „common“ species are far less frequently encountered than a couple of decades ago. Manifold factors may be responsible for this decline, but even in our developed and easily accessible environments it is not easy to identify the main cause. As we all know, the composition of biodiversity patterns as a consequence of global evolution in the *Geometridae* is often linked to mountains and mountain ranges that reflect the geological history of earth.



These patterns have for long periods of time been undisturbed by the destructive activities of man. Records and samples of life on the mountains of our planet are thus an important element of our knowledge of Geometrid biodiversity. In many parts of the earth, Geometrid species are richest at elevations around 1000 m. Therefore, much of our understanding of Geometrid biodiversity (especially Larentiinae) comes from sampling in alpine habitats. Indeed, the changes in biodiversity cannot be evaluated effectively unless they are also regularly recorded in those alpine areas. It may presently not be evident to everybody, but it is surely important to learn of, and analyze, an imminent extinction even of a tiny obscure Geometrid moth restricted – perhaps – to the summit of a single mountain in a faraway country. Important question: Is the necessary manpower available? The question is clearly rhetorical.

However, there is for the *Geometridae*, luckily enough, already a fundamental basis for the assessment of biodiversity changes: thanks to the worldwide „Scoble *et al.*“ species catalogue and the many publications on specific faunas, biogeographical distributions, and hostplant relations. During the last 150 years, outstanding lepidopterists and collectors explored the Geometrid fauna of high altitudes in Europe, Asia, and other parts of the world. They found extraordinary new species, which also enriched the studies on the phylogeny of the family. Let me name just a few mountaineering lepidopterists from Austria and Germany whom I am lucky to have met or know personally: BURMANN, REISSER, PINKER, DIERL, TARMANN, EBERT, KAESWEBER. Remarkable collectors in tropical mountains were, e.g., the PRATT brothers, MEEK, and – less well known on the continent – Miss Evelyn CHEESMAN, all adding enormously to the riches in the NHM *Geometridae* collection. And when reading the great names of the highest summits from Switzerland to the Pyrenees as the localities where Eugen WEHRLI, the famous author of the voluminous Supplement to vol. IV - Palaearctic Geometridae --□ of SEITZ, found, or searched, the species of his favourite high-alpine groups „*Psodos*“ and „*Gnophos*“ one cannot but wonder about his mountaineering skills, which then and today are needed to get there. With a few exceptions (cf. e.g. CHEESMAN, EBERT, PRATT), most entomological explorers did not elaborate on the details of their travels in mountainous landscapes: publication of new species would not allow extra space for „entomological novels“ as WEHRLI once termed it. But up until very recent years, travelling to, and collecting on, high mountains in Europe as well as in distant parts of the world has been a difficult and often risky business. It is unthinkable that even Mount Everest is nowadays open for booking by tourist „climbers“ of all ages. Whether that honours „sustainable tourism“ remains a question that might also be asked of the week-long festival at Zermatt celebrating, in 2015, WHYMPERS first ascent to the summit of the Matterhorn 150 years ago.

With regard to biodiversity and *Geometridae*, another commemorative date, also featuring a mountain more than 4000 m high, deserved public attention in 2015 as well – and to us it is certainly far more appealing.

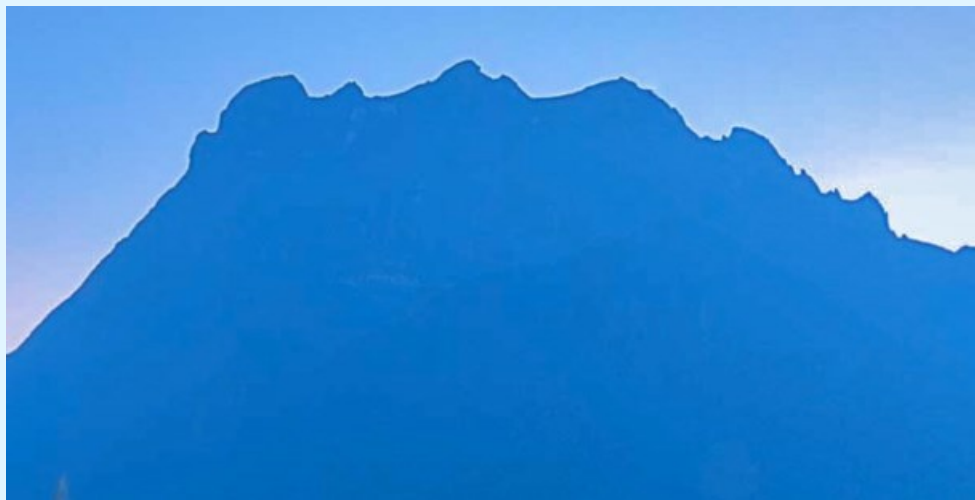
The person we honour today, was to have been with us. We all now know the reason why, alas, he is not! But we are still able to celebrate him:

Cheers, Jeremy Holloway!



The event referred to above, but not publicly celebrated then, might have been entitled 50 years of action for biodiversity.

It was in 1965 that Jeremy HOLLOWAY, H.J. BANKS and H.S. BARLOW started – with the support by the *Cambridge Explorers and Travellers Club* – the *Cambridge Expedition to Kinabalu* in order to explore the lepidopterous fauna of that *Summit of Borneo* in Sabah (Malaysia). The expedition was not the first ascent to Kinabalu, but it laid the ground for a leading masterpiece in biodiversity research: the series of 18 parts of the *Moths of Borneo (MoB)* published by HOLLOWAY between 1983 and 2011 under the auspices of Henry BARLOW and the *Malaysian Nature Society*. Over 4,500 species of larger moths (*macroheterocera*) are treated in *MoB*, more than 1,000 of which are described as new. Moreover, *MoB* is also a milestone in the higher classification of the Lepidoptera treated there.

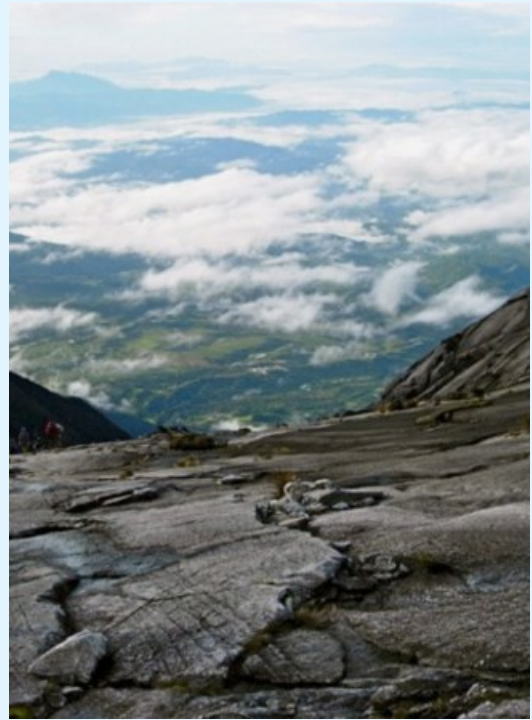


The basis for such an eminent scientific opus had to be created by hard physical work in the first place. Collecting on a transect from the jungle parts up to the rocky summit of Mount Kinabalu is truly something „on the wild side“ and not a „walk“ but demanding multiple ups and downs according to weather conditions and promising places for collecting success. The Kinabalu National Park Headquarter nowadays advertises Mount Kinabalu as one of the „easiest accessible summits in the world“, even to visitors without any alpine experience. Sustainable tourism? In the 1960s, by contrast, mountaineers and climbers still had ample scope to demonstrate appropriate skills, endurance, and they faced real risks on such a mighty mountain.

The summit of Kinabalu, *Low's Peak* 4095 m high, was first reached by the zoologist John WHITEHEAD and his six companions on 11 February 1888. Earlier, in 1858, the plant hunter Spenser Buckingham SAINT JOHN together with H. LOW had already been near the top. Both parties reported in detail the enormous difficulties of ascent and descent with which they were confronted. Due to ancient glaciation large granite slabs cover the summit area. They are slippery even when dry, but become really dangerous whenever there is fog or a sudden shower. During one of the earlier expeditions a porter tripped and, sliding away, only came to a halt just before the abyss when the Malayan kris fastened around his waist got stuck in a fissure in the rock. Nowadays strong ropes are fixed everywhere to protect the visitors.



Low's Pea



Granite slabs on the descent from summit area

In 1965 HOLLOWAY and BANKS were able to use a simple shelter at 3750 m (*Sayat Sayat*) and spent some nights light-trapping there.



Holloway and Banks at SayatSayat in 1965



Among the 137 moths was a fine Geometrid, *Hypocometa titanis*, and also a new endemic Noctuid: *Diarsia barlowi* HOLLOWAY, 1976.



Hypocometa titanis



Diarsia barlowi

Halfway down (*Kiau Gap* at 1760 m) HOLLOWAY took the second female specimen of a Geometrid beauty at a windy ridge. The holotype of this species *Milionia pendleburyi* is also female and was described by PROUT in 1932. No male and no other specimens are known.



Milionia pendleburyi Prout, holotype



Specimen from *Kiau Gap* figured in
Inoue *Milionia* Catalogue

At the time of the Kinabalu Expedition HOLLOWAY had just reached the age of a 'tween'. He was not a trained alpinist nor member of an Alpine Club. During following expeditions in later years he often explored the Lepidoptera at high mountains in the SE Asian tropics. He was the first European to reach the summit of the calcareous Gunung Api in Borneo and found Lycaenids in the dwarf shrubs up there. During the *Project Wallace* expedition to North Sulawesi he helped to clear the path up to the summits of Gunung Mogogonipa and Gunung Poniki. On Seram in the Moluccas he collected at the tops of Gunung Kobipoto and Gunung Binaia. And in New Caledonia he reached the summit of the highest mountain there, Mount Panie. After all the physical effort and the time spent on taking care of the precious collected specimens, it is most admirable that he managed also to document his travelling and climbing in his diaries. He has regrettably not yet found the occasion for a publication. But of course, the results of his collecting expeditions have found their way into many important publications in addition to *MoB*. The scientific community owes him and what is now his **53** years of action a good part of its knowledge of lepidopteran biodiversity. If the 50 years mark of the Kinabalu Expedition 1965 was just privately commemorated by the participants with their families at a dinner in London, for his outstanding scientific contributions during more than a quarter of a century Jeremy HOLLOWAY was recently awarded the LINNEAN MEDAL of the *Linnean Society of London*:

Heartfelt congratulations from the *Forum Herbulot* 2018, Jeremy!

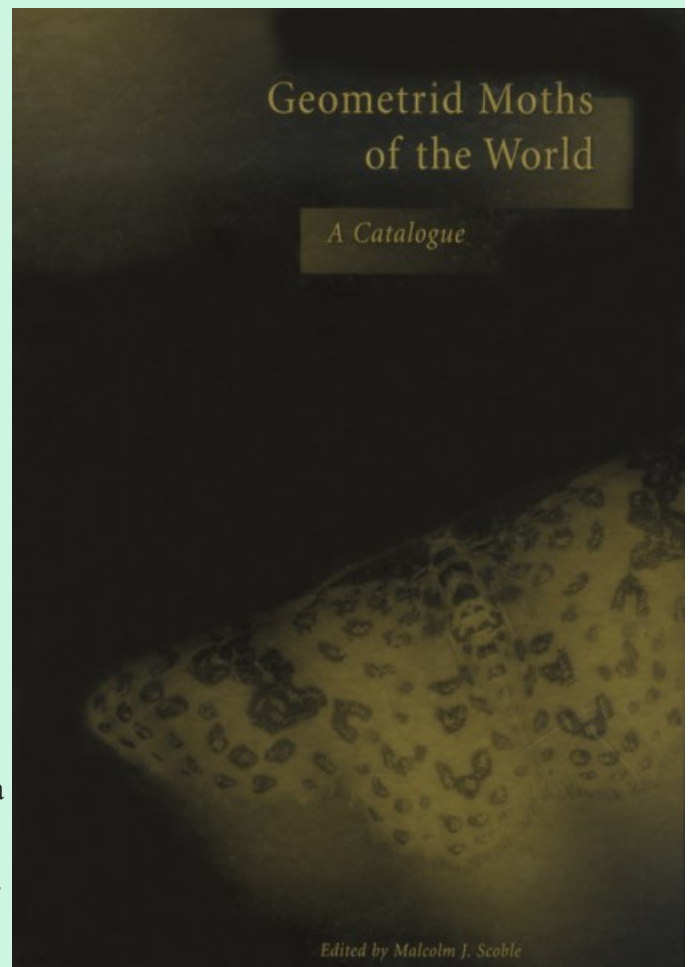
Update of the Catalogue Geometrid Moths of the World

The Catalogue Geometrid Moths of the World (first published by Scoble 1999) was last updated in the year of 2007 (“Scoble & Hausmann”), including about 3,000 changes and new taxa, restricted to information on scientific names and authors, excluding information on original descriptions, type specimens and type localities. Now, more than 10 years later, the Catalogue urgently needs another update, expecting another >3,000 changes (new taxa, changes of taxonomic status). The information on type deposition, type localities and original descriptions needs to be updated for the whole period from 1999 to 2018.

At the Forum Herbulot 2018, the organizing core-group (Axel Hausmann, Pasi Sihvonen, Gunnar Brehm, Hossein Rajaei & Malcolm Scoble) presented a plan for achieving this goal, hopefully involving many partners feeling responsible for smaller taxonomic and/or geographic units. Partners may take over responsibilities for (a) continents (all geometrids), (b) subfamilies or tribes (at global scale) or (c) a combination of both (e.g. North American Sterrhinae or African Eupitheciini). Requirements are knowledge of the Code (ICZN), access to zoological libraries (incl. Zoological Record), experience in networking and scientific correspondence, taxonomic knowledge of selected focus groups. We plan to provide working tools (provision of working tools (data on EXCEL or multi-user www-platform) during winter 2018/2019. If you are interested to join the group, please contact: hausmann.a@snsb.de.

Applications please until 31 October 2018.

We already have found responsible partners for the subfamily of Geometrinae worldwide (David Plotkin), for the geometrids of Central and South America (Gunnar Brehm) and for the geometrid fauna of Europe (Axel Hausmann). Hossein Rajaei will cover the geometrid fauna of Middle East and central Asia. Pasi Sihvonen plans to take responsibility for North America (excluding Geometrinae, see above) in consultation with acknowledged authors and he is prepared to assist in the work on African fauna, via extensive consultation with experts like Axel Hausmann, etc.

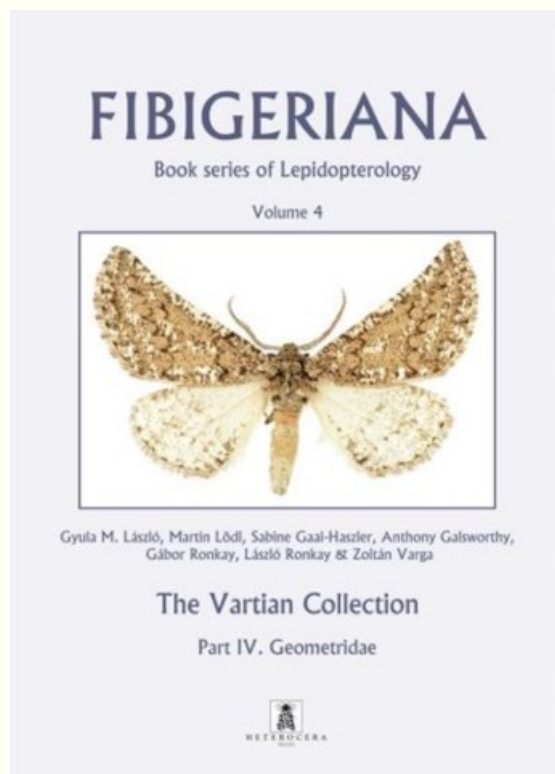


NEW PUBLICATION

FIBIGERIANA Volume 4 - GEOMETRIDAE

The fourth volume of the series introducing the Vartian Collection housed in the Natural History Museum, Vienna

The **FIBIGERIANA** book series of Heterocera Press has been launched with the aim to publish the taxonomically revised historical Lepidoptera collections preserved in museums. The first, second and third volumes of **FIBIGERIANA** (published in 2012, 2013 and 2015, respectively) provided a comprehensive demonstration of the impressively species-rich Noctuoidea, Lasiocampoidea, Bombycoidea, Drepanoidea, Cossioidea, Zygaenoidea, Hepialoidea and the Rhopalocera material of the Vartian Collection. The newly published fourth and at the same time the last item of the series provides an exhaustive summary of the extraordinary **Geometridae material of the Vartian collection**. This remarkable part of the collection represents probably the most representative and taxon-rich Geometridae collection of **North Africa, Europe, the Middle East, Southern Central Asia** and the **Western Himalayas**. The book comprises the complete checklist of the Geometridae taxa preserved in the collection, with reference to the numbers and countries of origin of the specimens at each taxon; the specimens are illustrated in 87 colour plates introducing not fewer than 1353 species-group taxa collected in altogether 52 countries. Besides the exhaustive collection checklist, the book contains a complete list of the Geometridae type material of the Vartian Collection as well as description of seven new species along with the associated black and white genitalia figures. The fourth volume of the **FIBIGERIANA** book series is meant to be serving as a suppletory identification guide to the Geometridae fauna of the Western Palearctic zoogeographical region.



The book is warmly recommended to all amateur and professional Geometridae enthusiasts. Price of the book: 94,50 EUR incl. VAT (5%), (+ postal and packaging cost). Could you please indicate your contact phone number when placing an order, so the delivery shall be hassle-free. Subscription discount: -10% (also valid for subscribers of The Witt Catalogue series). Special discount for ordering the complete set of Fibi-geriana (Vols 1-4): 25% For ordering the new volume please contact us by e-mail: info@heterocera.hu or visit our website www.heterocera.net. The book is available at the main entomological book sellers, too.

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The release of the database *Geometridae mundi* (1st edition: June 2018)

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Geometridae mundi

by Hans Löbel & Axel Hausmann



From June 11-18, 2018 the 10th FORUM HERBULOT took place in Stuttgart, Germany. Besides the conference materials, participants also received the data base *Geometridae mundi* which was provided by Hans Löbel and Axel Hausmann (ZSM). With the distribution of a double DVD the project has officially been published. The aim was presenting a new model project: communicating the content of an entomological textbook, i.e. the illustration of the World Catalogue of geometrids, by means of a digital database (based on HTML programming).

The database lists all described species and subspecies of *Geometridae* on the basis of the catalogue by Scoble et al. (1999) and an update thereof by Scoble & Hausmann (state of 2007, see http://www.lepbarcoding.org/geometridae/species_checklists.php), and further a number of uncertain taxa, totalizing to 29.800 taxa. Considering the large amount of data the content was split into three parts which largely correspond to the most diverse subfamilies *Sterrhinae*, *Larentiinae* and *Ennominae*.



Opening the database in a random web browser launches the home page that directs you either to a short introductory text or these three particular parts which give a summary of all species under “Geometridae worldwide”. This part is complemented by six further categories that assign species to the respective faunal regions. This allows easier determination of specimens of a certain origin, like for example the African, or Australian faunal region.

In this first publication, it was unfortunately not possible to picture every single species of the world. However, by May 2018 12,534 species have been illustrated with more than 49,200 digital photos. These photos were taken from the following collections: coll. HERBULOT (incl. the “HERBULOT-Addenda”) from ZSM (approx. 10,500 taxa), the geometrid collection of the Australian National Insect Collection, Canberra (ANIC, approx. 1,200 taxa), the collection LÖBEL (approx. 2,000 taxa), the comprehensive material of the Ditsong Museums Pretoria, the collection STAUDE, Magaliesburg/ South Africa (database Lepidops), as well as collections of further renowned entomologists. With the help of these collections 1,419 holotype and lectotype specimens and 774 paratype specimens can be displayed.

Back to the database: The presentation of the whole species inventory is realized at several levels. There are overview pages as well as pages for genera and species, respectively. Each taxon has its own page with up to eight digital photos (incl. undersides of wings and genitalia) of 750 pixels in width each. Further, each genus and species page can be accessed through alphabetical indices (more information about this can be found in the general part). Numerous links between index pages as well as overview, genus and species pages make the database very user-friendly.

A considerable advantage over a conventional textbook is the lack of an editorial deadline. Regarding presentation of text, both a textbook and a digital platform can carry out about the same. However, the digital database outperforms any printed media with respect to access to photos, index functions, a later inclusion of literature records, the long-term further development and costs. The database might be accessible online in the future and therefore facilitates collaboration of geometrid experts around the globe.

The general concept of the project offers the opportunity of constant addition and further development of the database in the future. This will not only concern the inclusion of photo material but also of newly described species, the addition of genitalia photos, texts and literature records to species pages. The possibility to correct mistakes is a further advantage. The authors of the database hope for many international entomologists to take part in the development of the database by providing photos and text contributions. Those who are interested in acquiring the *Geometridae mundi* database may purchase the double DVD at a price of 10 EUR from Dr. Axel Hausmann, Zoologische Staatssammlung München, Münchhausenstr. 21, D-81247 München (email: hausmann.a@snsb.de). Any web browser is suitable for the database, however, according to our experience it will work best with Google Chrome.

Reference

Scoble, M. (ed.), M. S. Parsons, M. J. Scoble, M. R. Honey, L. M. Pitkin & B. R. Pitkin 1999. *Geometrid Moths of the World. A Catalogue (Lepidoptera, Geometridae)*. Vol. 1 and 2. CSIRO Publishing, Collingwood & Apollo Books, Stenstrup. xxv + 1016 + 129 pp.

First invitation to Forum Herbulot XI to be held in Lund, Sweden

The head organizer of the International Congress of Forum Herbulot XI, **Niklas Wahlberg**, would like to welcome all to southern Sweden to the beautiful town of Lund. The meeting will take place June 15 to 18, 2020 at the Department of Biology, Lund University.

The department hosts the large entomological collections of the Biological Museum at Lund University, which include the collections of the late Ingvar Svensson. In addition there will be a field trip to visit the local habitats, including a chance to collect. You can collect and sequence whatever you want (except protected species) with peace of mind, as Sweden has made its genetic resources free to the world!



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Scientific board and honorary membership of Forum Herbulot

Participants of Forum Herbulot 2018 warmly welcomed the proposals to include **Pasi Sihvonen** (Helsinki, Finland) and **Hossein Rajaei** (Stuttgart, Germany) into the "Scientific Board" of Forum Herbulot, as well as appointing **Manfred Sommerer** (Munich) "Honorary Member" of Forum Herbulot, acknowledging his great merits in having and realizing the idea of the research initiative of Forum Herbulot.



Pasi Sihvonen



Hossein Rajaei



Manfred Sommerer