

VOL. 9, Issue 1

October 2019



A newsletter for geometrid specialists

FORUM HERBULOT NEWSLETTER

Editorial

This Newsletter is mainly intended to facilitate the early planning for those who plan to attend the **International Congress of Forum Herbulot 2020** in Lund, Sweden. Here we give more detailed information on this meeting. Another Newsletter is planned for late 2019 to concretize the plans and give some additional information if required.

Invitation to Forum Herbulot XI

Niklas Wahlberg (Lund, Sweden) would like to welcome you to the 11th International Congress of Forum Herbulot, entitled "The future of Geometridae systematics: from species descriptions to large scale phylogeny".

The key word here is the future, where are we going, how can we as a community continue to work together, what are the challenges, and how do we keep up with (or surpass!) the competition?

In the coming congress the attendees have the opportunity to present new results from their research on geometrid moths, but also other Lepidoptera if they are in common interest. Additionally, we will have much time for discussions and for 'social networking'. We invited several keynote speakers from around the world.

The congress will be closed with an attractive sightseeing program.

Date: 15-18 June 2020 (arrival 14 June, departure 19 June, conference 15-17 June, sightseeing program 18 June).

Venue: Lund University, Lund, Sweden

More information about online registration will be announced in the next newsletter and the homepage of Forum Herbulot: <http://www.herbulot.de/>

Contact Person: Niklas Wahlberg Email: niklas.wahlberg@biol.lu.se



The Forum Herbulot Newsletter appears regularly two times per year and will be posted on the webpage of Forum Herbulot: 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



Lund is a city in the southern Swedish province of Scania. The town has over 90,000 inhabitants.

Archeologists date the foundation of Lund to around 990, when Scania was part of Denmark. From 1103 it was the seat of the Catholic Metropolitan Archdiocese of Lund, and the towering Lund Cathedral, built circa 1090–1145, still stands at the centre of the town.

Denmark ceded the city to Sweden in the Treaty of Roskilde in 1658, and its status as part of Sweden was formalised in 1720. (source: www.wikipedia.com)

Lund University (Swedish: *Lunds universitet*) is a prestigious university in Sweden and one of northern Europe's oldest universities. Lund University is consistently ranked among the world's top 100 universities.

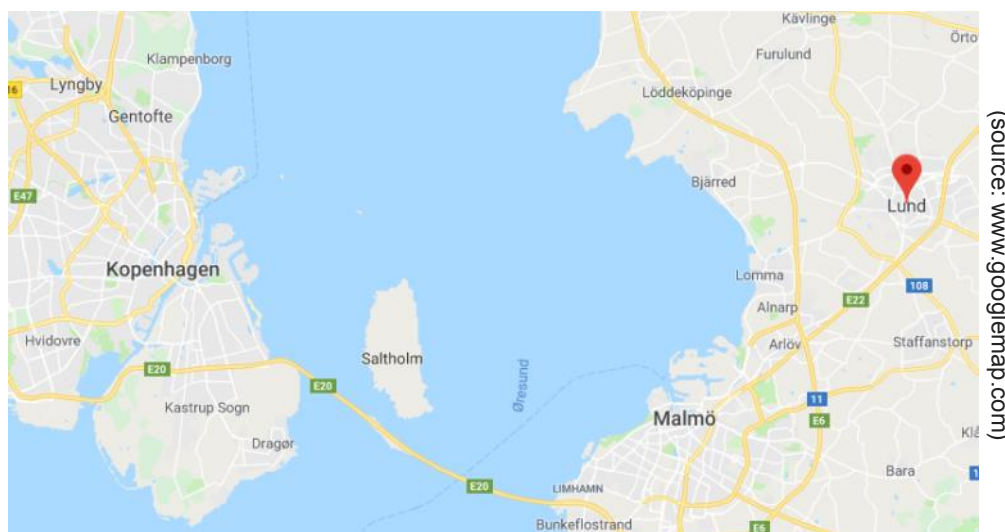


The university is located in the city of Lund, arguably traces its roots back to 1425, when a Franciscan studium generale was founded in Lund next to the Lund Cathedral. After Sweden won Scania from Denmark in the 1658 Treaty of Roskilde, the university was officially founded in 1666 on the location of the old studium generale next to Lund Cathedral.

Lund University has eight faculties, with additional campuses in the cities of Malmö and Helsingborg, with 40,000 students in 270 different programmes and 1,300 freestanding courses. The University has some 600 partner universities in nearly 70 countries and it belongs to the League of European Research Universities as well as the global Universitas 21 network. (source: www.wikipedia.com)

TRAVEL to Lund is easy. There are different kind of transportation systems, including railway, flight, bus and highways. There are two airports close to Lund: one is Copenhagen Airport (Kastrup) in Denmark (**best way to reach Lund from outside Sweden**). Alternatively, Malmö (Sturup) Airport located 30 km south-east of Lund. There is also a train station in Lund.

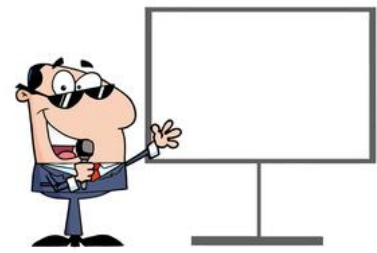
Congress venue (Lund University) located near city center and is reachable by walking.



(source: www.googlemap.com)

PRELIMINARY PROGRAM:

14.6.2020	arrival,
15.6.2020	registration, talks
16.6.2020	talks
17.6.2020	talks until evening, Gala dinner
18.6.2020	post-congress tour
19.6.2020	departure



CONTRIBUTIONS:

1. **Keynotes presentations** (30 to 40 minutes time (M) plus 5 M for discussion)
2. **Oral presentations** (10 M plus 5 M for discussion)
3. **Short talks** (3 M). This session will offer the opportunity to introduce projects, new findings (e.g. a new species) or any other announcements or cooperation calls. A three-minute poster introduction is mandatory for all poster presenters.
4. **Poster presentations**. The size of the poster should be up to A0 (840x1188 mm).

The best student presentation and poster (BSc, MSc and PhD students) will be awarded.

COLLECTING ACITIVITY AND COLLECTION VISIT:

Mid of June in Sweden is midsummer. Therefore, there is basically no night, but just a couple of hours of duskiness and light trapping is not that efficient. However, the organizer will choose a site fairly close by with a good geometrid fauna.

There will also be time to visit the entomology collections of the Biological Museum.



CONFERENCE FEE & REGISTRATION METHOD. Will be announced in next newsletter.

The organizer is going to apply for some grant to reduce the costs of participation.

Meigen-Medal awarded to Robert Trusch

Hossein Rajaei

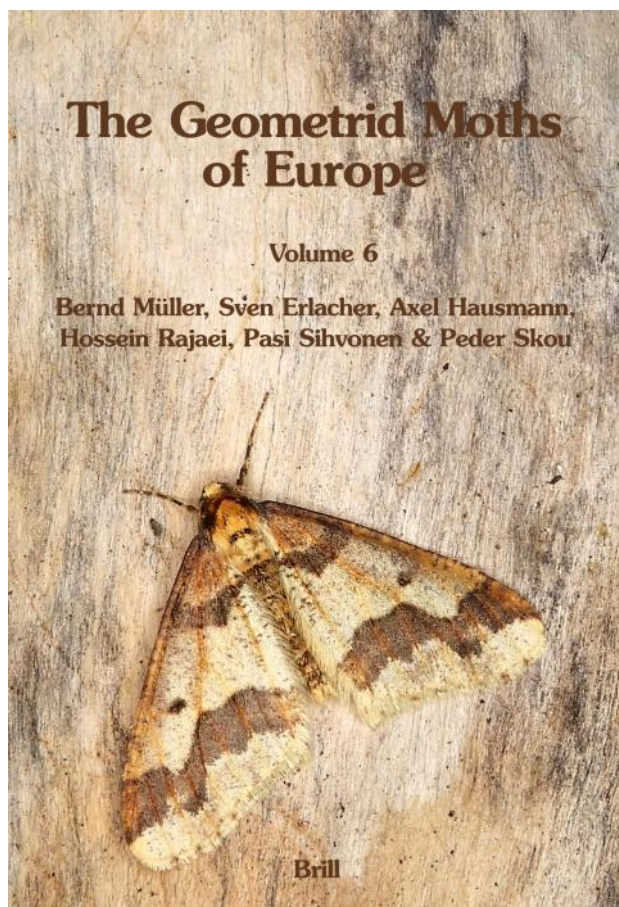
I'm proud to inform the members of Forum Herbulot that the Meigen-Medal was awarded on March 13, 2019 to Robert Trusch for his outstanding activities in lepidopterology.

This Medal, which named after the famous German entomologist JOHANN WILHELM MEIGEN (1764-1849), is awarded since 1993 by the Deutsche Gesellschaft für allgemeine und angewandte Entomologie (the German Society for General and Applied Entomology) to entomologists who play an important role in faunistic and systematics entomology.

Robert Trusch (former treasurer of SEL) is the curator of the Lepidoptera collection in the State Museum of Natural History Karlsruhe, Germany. During his scientific career in the last 16 years, Robert had an exceptional and unreplaceable role in organizing the society of the citizen scientists and cooperation between them in southwestern Germany. One of the most successful projects that show his essential organizing role is the "Landesdatenbank Schmetterlinge Baden-Württemberg", in which a large number of institutional and citizen scientists are working together to update the distribution data of the Lepidoptera of the state Baden-Württemberg (see: <http://www.schmetterlinge-bw.de/>).



The Geometrid Moths of Europe vol. 6 has been published



This volume presents the second and concluding part of the revision of the European taxa of the subfamily Ennominae, covering 181 species focusing on tribes Gnophini and Boarmiini. This volume presents also 21 additional species which have been recorded as new for the fauna of Europe since the publication of the volumes 1 - 5.

Volume 6 is the largest in the series with more than 900 pages.

In summary, over 140 taxonomic changes are proposed, including for instance descriptions of 4 new species and over 100 species- and subspecies-level synonymies. Several difficult genera such as *Charissa*, *Psodos*, *Sciadia*, *Nychiodes*, *Selidosema*, *Peribatodes* and *Tephronia* complex are covered.

All 202 species are illustrated in 30 colour plates comprising a total of 1116 specimens. Male and female genitalia structure of all species are illustrated in 131 grey-scale photo plates. Distribution in Europe and adjacent countries is shown on maps for all species. 219 of text-figures illustrate and explain diagnostic characters and other morphological structures for difficult groups.

Additionally, an updated systematic and annotated checklist of the Geometridae of Europe and adjacent areas is provided for volumes 1–6.

OBITUARY

Dr Martin Krüger (16 October 1964 – 24 July 2019)

by: Hermann Staude



Dr. Martin Krüger (Pretoria, Ditsong Museum) when giving his talk on "*Palaeogenic elements and recent arrivals - towards a tribal classification of southern African geometrids*" at the very first Forum Herbulot, 2001, in Munich. Martin was a founding member of Forum Herbulot.
©Photo: M. Sommerer

It is very sad to inform you of the passing away of our dear friend and colleague Martin Krüger.

Martin was a member of the scientific board of the Forum Herbulot initiative from the very beginning and has "been fostering and warranting only the highest scientific standards for the whole community of geometridologists" as aptly put by Axel Hausmann as read at Martin's memorial service.

Martin has been the curator of the Lepidoptera section of the Ditsong Museum of Natural History, Pretoria, South Africa for 29 years and was for long periods serving as acting director of the museum. He was probably the most productive taxonomist ever working on this important collection and produced many revisionary papers culminating in the description of over 500 new Lepidoptera taxa.

Most of his work was on Geometridae and he managed to create a stable taxonomic platform for several difficult, previously poorly studied, groups in a southern African context. This work created the opportunity for the advancement of further ecological and conservation work on southern African Geometridae, making the family today a prominent target group for highlighting the conservation needs of Lepidoptera in South Africa. His major works in this regard are the revision of the Afrotropical Macariini and his many revisions in the mostly South African endemic '*Drepanogynis* group of genera'.

Martin also worked on other Lepidoptera taxa amongst which is a revision of the genus *Bombycopsis* (Lasiocampidae), which he produced with his friend the late John Joannou, describing 68 new species.

During the last decade, for a number of years, Martin took on the challenge and was completely occupied in attempting to create order in the taxonomically extremely complex Lithosiini (Erebidae: Arctiinae) of the Afrotropical Region. This resulted in the production of what was probably his *magnum opus*, The '*Generic classification of Afrotropical footman moths sensu stricto*', a 176 page monograph in which he recognised 98 genera, described 60 new genera as well as the type species of 25 of these new genera, thereby creating as with his other works a stable platform for future study.

The preparation of a full obituary and a comprehensive list of his publications is underway and will be published at a later stage.

Martin was taken away from us prematurely and will be sorely missed by his family, friends and colleagues.

NEW PUBLISHED PAPER

New phylogeny of Geometridae published

Leidys Murillo-Ramos

Murillo-Ramos et al. published a new molecular phylogenetic hypothesis of Geometridae in *PeerJ*, which aimed to investigate the evolutionary relationships of the major lineages. This phylogeny deals with 1206 taxa from all biogeographical regions, and in terms of taxon sampling, constitutes the biggest phylogenetic study so far published in Lepidoptera. Eight subfamilies were validated as monophyletic, one of them was proposed as new: Epidesmiinae that occurs in Australia and South-East Asia. Epidesmiinae are a lineage previously considered as part of Oenochrominae s. l. Sterrhinae were found as the most basal lineage, and many tribes were recovered para- or polyphyletic, e.g. Diptychini and Nacophorini. The study also proposes tens of taxonomic changes at the tribe and subfamily levels, which improves significantly the Geometridae taxonomy. Archaeobalbini **stat. rev.** Viidalepp (Geometrinae) is raised from synonymy with Pseudoterpnini Warren to tribal rank. Chlorodontooperini Murillo-Ramos, Sihvonen & Brehm and Drepanogynini Murillo-Ramos, Sihvonen & Brehm are described as new tribes in Geometrinae and Ennominae, respectively. The authors want to thank many Forum Herbulot members, who helped the research by contributing valuable samples. The original open access article* is available on <https://peerj.com/articles/7386/>.

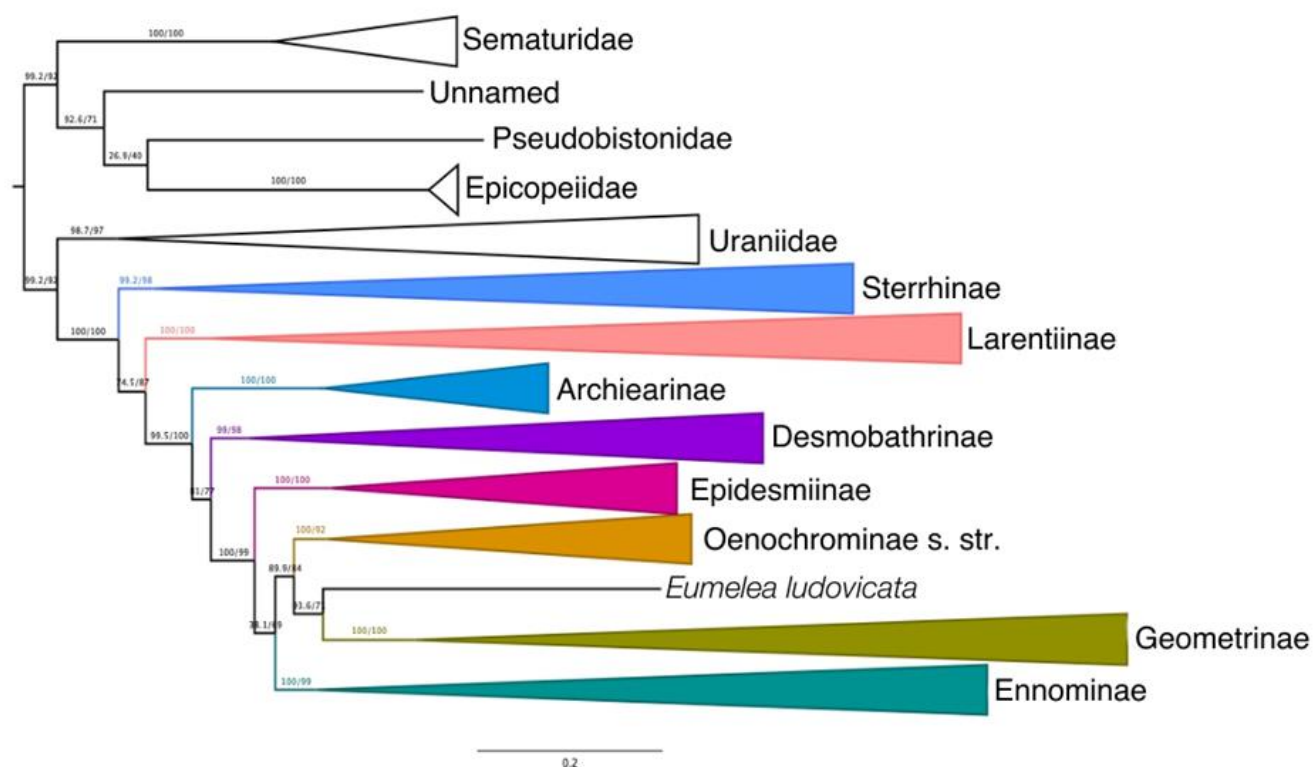


Figure 1. Evolutionary relationships of major groups of the super-family Geometroidea.

*Murillo-Ramos L, Brehm G, Sihvonen P, Hausmann A, Holm S, Reza Ghanavi H, Öunap E, Truilverk A, Staude H, Friedrich E, Tammaru T, Wahlberg N. 2019. A comprehensive molecular phylogeny of Geometridae (Lepidoptera) with a focus on enigmatic small subfamilies. *PeerJ* 7:e7386 DOI 10.7717/peerj.7386

Geometrid moths win the photo competition

Pasi Sihvonen

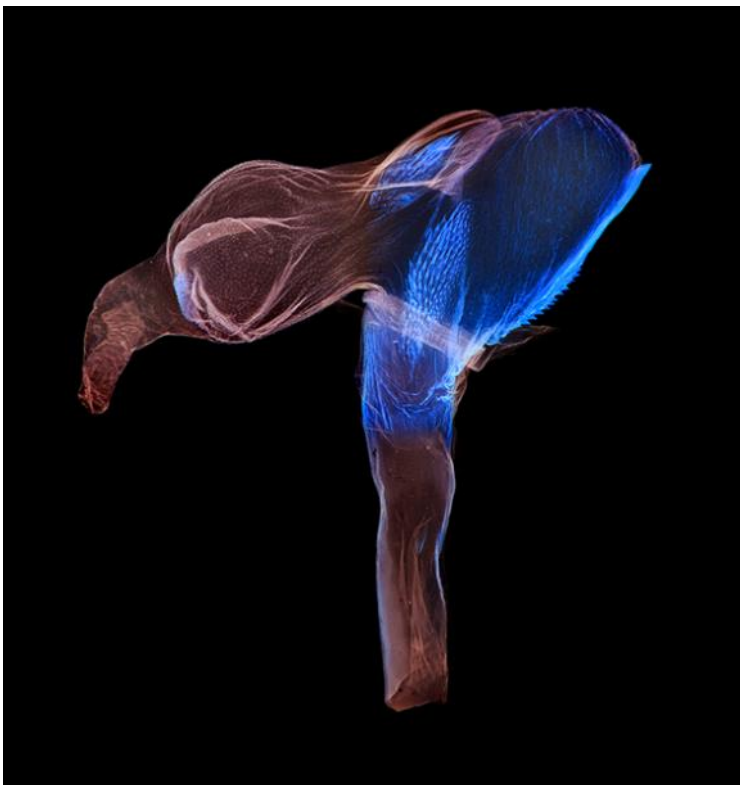
Photography trainee Max Salvador Söderholm did his internship at the Finnish Museum of Natural History, and he photographed reproductive organs of geometrid moths for an upcoming photo exhibition at the museum under the theme “Hidden beauty of nature”. Photos on *Hypomecis roboraria* (Ennominae) and an undescribed *Problepsis* (Sterrhinae) were amazing and were submitted to the Science Photo Contest organised by The Federation of Finnish Learned Societies. Max’s photos won the competition and his amazing photos indeed unveil nature's hidden beauty! Pasi Sihvonen supervised the internship.

<https://www.tsv.fi/fi/tiedotteet/tieteellisten-seurain-valtuuskunnan-tiedevalokuvakilpailun-voittajaksi-valittiin-max>

All photos: Max Söderholm., CC BY-SA 4.0



Hypomecis roboraria, male genitalia.



Hypomecis roboraria, male aedeagus.



An undescribed *Problepsis*, male genitalia.

Dear Herbulotians, the next newsletter will be probably published in December 2019 / January 2020. Your contributions are highly welcome for publishing in the coming newsletter.