

**9th International Symposium on Syrphidae (ISS),
Curitiba, Paraná, Brazil; 28th August – 1st September 2017**

Ximo Mengual

Zoologisches Forschungsmuseum Alexander Koenig, Leibniz-Institut für Biodiversität der Tiere
Adenauerallee 160, D-53113 Bonn, Germany; x.mengual@leibniz-zfmk.de

The 9th International Symposium on Syrphidae (ISS9) took place in the Hotel La Dolce Vita, between Curitiba and Tijucas do Sul (Paraná, Brazil), and the name of the hotel explains to perfection how the participants felt. Located in a preserved region of rich nature, close to the "Serra do Mar", and surrounded by forest, the venue of the ISS9 offered a relaxing environment for scientific discussions and superb food and drinks to fulfill your energy needs. I thank the organizers, Mirian N. Morales and Luciane Marinoni, not only for the 'smooth' and interesting program, but also for taking care of every single detail to make our stay a truly unforgettable experience in Brazil. I must admit that I really enjoyed my visit to Curitiba, and Luciane and Mirian made me feel like at home.

The program included three days of presentations, talks and poster sessions, with a final excursion to the historical city Morretes on Friday. A total of 41 attendants from 11 countries (Argentina, Belgium, Brazil, Canada, Colombia, Czech Republic, Finland, Germany, Netherlands, Serbia, Spain) came together, and the number and quality of presentations was very high, with 34 talks and 29 posters. After the ISS9, Mirian N. Morales together with 12 colleagues (from Colombia, Czech Republic, Finland, Germany, Serbia) organized a workshop on 'Biology and Systematics of Diptera' at the Federal University of Lavras, in Minas Gerais State, where the students of the Entomology Graduate Program (<http://www.ufla.br/ascom/2017/09/05/pesquisadores-internacionais-se-encontram-na-ufla-para-falar-sobre-sistemica-e-biologia-de-insetos/>) took part and were encouraged to study Diptera of this region.



(photo credit: Diego Souza)

Tuesday August 29th started with the topic ‘Phylogenetics and DNA barcoding’ with a very interesting talk by Kevin Moran about the phylogenetic relationships of syrphid genera using multiple genes. Talks on new genes with phylogenetic signal, the use of anchored-hybrid enrichment, and the challenges and future perspective of DNA barcoding followed. We also had time to discover the first records of the bacterial endosymbiont *Wolbachia* in the genus *Merodon* Meigen, 1803 and to say goodbye to the superfamily Syrphoidea based on transcriptomic data. At the end of the first day, the workshop on ‘Systematics and Taxonomy’ started with an excellent talk about the Neotropical diversity of the Microdontinae, summarized by Menno Reemer, and two more presentations about the taxonomy of *Merodon*, including geometric morphometric analysis of male genitalia.

Wednesday August 30th continued with the workshop on ‘Systematics and Taxonomy’, with stimulating talks on larval morphology and taxonomic revision of several genera such as *Chrysotoxum* Meigen, 1803 and *Psilota* Meigen, 1822. Just before lunch we were introduced to a new workshop on ‘Faunistics, Biogeography, Biodiversity Assessment and Conservation’, where we had the opportunity to discuss biogeography, species distribution, citizen-scientists and web-based determinations and faunistic surveys. Personally, I was fascinated by the updates on two field guides about Syrphidae from colleagues in The Netherlands and Canada, and by two captivating plenary talks about divergence time estimation in Syrphidae (Augusto L. Montoya) and the loss of insects’ biomass in the last decades in Central Europe (Axel Ssymank). That night we could savor some Brazilian dishes during a special dinner planned by the organizers, including the pinhão (the seeds of *Araucaria angustifolia* (Bertol.) Kuntze) and were pleased with the special visit of Wayne N. Mathis and his beloved wife, Dianne.

The workshop on ‘Biology, Ecology, and Integrated Pest Management’ took place on Thursday August 31st. The day started with a remarkable plenary talk about syrphids as myiasis agents by Santos Rojo, and presentations on how syrphid larvae can help in the waste management produced by human activities (waste ponds or beer industry by-products) continued enjoying the audience. There was time to introduce a new larval lifestyle (kleptoparasitism) for Syrphidae, to report about pollen from gut contents, and to discuss the role of syrphids as pollinators as well as the role of flower flies in plant-flower visitor networks, among other topics. Finally, there was an invitation to collaborate on creating a database about feeding habits of syrphids as a tool for conservation.

At the end of the first and second day of the ISS9, we had the presentation of the poster contributions. Besides the colorful, sometimes astonishing beautiful, fascinating presentations, we learned about how climate may shape differences on wing and male genitalia among cryptic and sibling species, the use of syrphids as crops pollinators in greenhouses, the preimaginal morphology of some genera, the application of DNA barcoding on some groups, the olfactory response of the adults versus the larval prey, and how to useful are flower flies to designate conservation areas or to detect extinction risk.

The overall experience was fantastic and participants took part of a joyful atmosphere to learn, talk and discuss about flower flies. We hope that our experience prompt others to join us in two years (2019) in the Lesvos Island, Greece, where the ISS10 will take place.
