

The newsletter of the European Society of Arachnology

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From the President

By Ferenc Samu

Dear Members of the European Society of Arachnology, I think arachnologists are really fortunate people, because there is an exceptional cohesion among them. Why is this? Maybe, because we are just the right number of people, not too few, not too many. Furthermore there is relatively little money involved in our subject (how lucky!), so harsh competition and secrecy are mostly superfluous. But first of all, because we share fascination for an entertaining and diverse subject that does not easily give in, we thus need patience, creativity, a sense for fine details, and the capability to co-operate. These are just the characteristics that facilitate human bonds! ESA is there to strengthen these bonds. From now on we will attempt to make the customary newsletter a bit more informative, colourful and personal. I hope you will enjoy this!

Congress Report

By Marco Isaia

Photos by: Arthur & Nollie Decae, Efrat Gavish, Pao Chen Huan, Olena Iaroshynska, Marco Isaia, Christian Komposch, Hsien Chun Liao, Mauro Paschetta, Ferenc Samu, Iara Sandomirsky.
Thanks to Yael and Efrat for adding important details!

The 26th European Congress of Arachnology (ECA) was hosted by the Jacob Blaustein Institutes for Desert Research, Sede Boqer Campus of Ben-Gurion University of the Negev at Midreshet Ben-Gurion, 50 km south of Be'er Sheva, in the middle of the Negev Desert.



Left: Yael Lubin, chair of the 26th European Congress of Arachnology. Above, the congress logo: an outline of Hod Akev and Avdat high plateau and the white widow spider *Latrodectus pallens*



View from Midreshet Ben-Gurion toward the Zin Canyon, Hod Akev and Avdat highland plateau, with some Nubian Ibex (*Capra nubiana*) in the foreground.

Like most of other colleagues, I arrived at Midreshet Ben-Gurion on the evening of September 3rd and had a warm reception by Yael Lubin, chair of the congress. When, the morning after, I looked from the window of my room, I realized what an amazing landscape was surrounding us: a rocky desert land of sunshine and coloured highlands, carved by deep canyons, wadi and craters. With such an amazing welcome, I thought, this is going to be a marvellous congress (and, in fact, it was).

Although being European by its official title, the Congress was attended by 130 participants and 11 accompanying persons from 27 countries (Fig. 2) and from all continents, including colleagues from such distant countries as Taiwan (I-Min Tso's "regular" team), Japan (Hirotugu Ono from National Museum of Nature and Science, Tokyo), India (Elizabeth Mathew and Ambalaparambil Sudhikumar from Kerala), Australia (André Walter from University of Melbourne), Namibia (Tharina Bird representing the National museum of Namibia), Canada (Maydianne Andrade from University of Toronto Scarborough), USA (Paula Cushing from Denver Museum of Nature and Science, Deborah Smith, Yong-Chao Su and Mari Pesek from University of Kansas, Lorenzo Prendini from the American Museum of Natural History of NY, and Ingi Agnarsson from University of Puerto Rico, Rio Piedras), and Uruguay (Maria Albo from Clemente Estable Biological Research Institute Montevideo).



Participants by country

Israel	30	Ukraine	3
Czech Rep	13	Hungary	2
Germany	11	India	2
Taiwan	9	Slovakia	2
Denmark	8	Slovenia	2
France	8	United Kingdom	2
USA	6	Australia	1
Russia	4	Canada	1
Spain	4	Japan	1
Switzerland	4	Liechtenstein	1
The Netherlands	4	Namibia	1
Austria	3	Palestine	1
Belgium	3	Uruguay	1
Italy	3		

The countries represented by the highest number of participants after Israel (30) were: Czech Republic with 13 participants, Germany with 11, Taiwan with 9, Denmark and France each by 8 participants, and USA with 6 participants.

Overall, more than 90% (118/130) of the participants contributed presentations, with 80 participants (62%) delivering oral presentations and 38 participants (29%) presenting 44 posters. More than 50% of the presenting participants were students.

The first plenary was given by Lorenzo Prendini from the American Museum of Natural History of New York, who presented the “state of flux” of the current phylogeny and classification of scorpions. Lorenzo explained his approach towards the complete revision of the order, supporting his view with molecular and morphological data. His outlook was thoroughly based on multiple exemplar species, representing all scorpion families and more than half of all scorpion genera. An interesting short session, chaired by Paula Cushing, on minor orders of arachnids followed, with insights on Solifugae (Tharina Bird), their relationships to Acariform mites (Jason Dunlop) and Ricinulei (Jerome Muriene). An extensive symposium on systematics, chaired by Arthur Decae came after the first nice coffee break (just a few hours after a delicious breakfast buffet, served in the dining hall of the college). The first part of the symposium was mostly centred on orb weavers and their evolution (Dimitar Dimitrov). Matjaž Kuntner's lecture spurred the entire arachnological community to move from alpha to modern taxonomy, aiming at publishing integrative studies, emphasizing on wider approaches and cyber taxonomy.

Arthur Decae had the hard job of opening the afternoon session (after and excellent lunch) with a glance at the enigmatic world of Mediterranean

species of *Nemesia* and their link with paleogeographical and paleoclimatological changes. Mygalomorphs were also the focus of Elisa Mora's talk on the spinning apparatus of Mediterranean trapdoors spiders and Vera Opatova's one on *Titanidiops* biogeography. Her talk was awarded second prize for Best Arachnology Student by Arachnologische Gesellschaft. Carles Ribera focused on the origin and the distribution of cave dwelling Mediterranean leptonetids, while the phylogeny of mynoglennines and the genus *Stemonyphantes* were the subject of Holger Frick's and Efrat Gavish-Regev's talks; both focusing primarily on morphology. An interesting talk on the role of dispersal in the generation of biodiversity was given by Ingi Agnarsson (postponed to Thursday), who presented a conceptual model of dispersal biogeography based on his recent works on nephiliids. Two short sessions on Taxonomy & Methodology (Yuri Marusik, Sudhikumar and Anna Šestáková) and Evolution (Martin Forman and Jiří Kral), both chaired by Peter van Helsdingen, followed.

The first congress day ended with a slide show by Amir Weinstein, illustrating the arachnids of Israel, a nice outdoor reception with a young jazz band performing live at the patio of the Ben Gurion Heritage Institute. Unconventionally (anyway, how can it be conventional?), the traditional Russian Party was scheduled the same evening.

Despite the hard wake-up (and some sporadic hangovers among the audience), day two began with a lively plenary talk by I-Min Tso, who drew attention of the audience to the interactions of spiders and insects from the perspective of insect visual physiology. It seemed clear that factors shaping the design of colour signals in orb weavers are far more complicated than previously known and that this interesting field of research is pretty much undiscovered. A symposium of six talks, chaired by Stano Pekár and Søren Toft on prey-specialized spiders followed.



The Poster sessions held at the hall of the Biology building

The two chairs started with an excellent introduction and two appealing talks on the evolution of food specialization and its significance in terms of



adaptation. Four trophic categories of specialized spiders were clarified, basing the categorization on the criteria of diet breadth and the presence of adaptations. According to Stano's view euryphagous generalists, stenophagous generalists, euryphagous specialists and stenophagous specialists need to be distinguished. Eva Líznavá (*Oecobius navus*), Milan Řezáč (*Dysdera*), Mor Salomon (*Stegodyphus*) and Christina Holm (*Stegodyphus* vs. *Anelosimus*) held their talks within the session, focusing on trophic specialisation and dietary niches in different species of specialized spiders. Christina Holm's talk on dietary niche and prey preference of two species of *Stegodyphus*, was awarded with the Oxford University Press Student Award in Arachnid Ecology (first prize).



Desert at night: *Leirus quinquestriatus* (left) and *Ptyodactylus guttatus*

The first poster session (21 posters) took place in the Diversity & Faunistics, Taxonomy, Physiology & Biochemistry and Arachnid Systematics.



Typical "Israeli meal", informal and outdoor: Falafel and salads in Pita

Physiology and biochemistry was the topic of the second session of day two, chaired by Eran Gefen, with three presentations focusing on venom (Wolfgang Nentwig & Lucia Kuhn-Nentwig), metabolism (Bhawna Kalra) and capture-spiral glue (Christian Kropf). Jutta Schneider and Trine Bilde chaired the symposium on Behavioural Ecology, with two talks dealing with web decorations (Ren-Chung Cheng talked about the role of blue waveband in attracting insects to *Argiope* decorations and André Walter about the evolution of web decorating behaviour), one about ageing and foraging effort (Mylène Anotaux), and one about the loss of legs by Alain Pasquet. Stano Korenko gave an interesting overview on web manipulation induced by parasitoids. Ren-Chung Cheng's lively talk was awarded with the Cambridge University Press Student Award in Behavioural Ecology. The session on Diversity & Faunistics was chaired by Theo Blick, and hosted six talks about spiders of Israel (Yuri Marusik & Sergei Zonstein), Laos (Peter Jäger), Russia (Mikhail Omelko), Caspian Sea Lowland (Tatyana Piterkina) and the Ukraine (Nina Yu Polchaninova). Peter van Helsdingen took stock of the situation regarding Fauna Europea, with special reference to spiders.

Alberto Chiarle and Olena Yaroshynska were awarded with the first and second prize, respectively, for the best poster (Arachnologische Gesellschaft Student Award in Arachnology).

Chao-Chia Wu, who presented a poster on *Cyclosa mulmeinensis* and the effect of wind on stickiness of its silk, was awarded with the European Society of Arachnology Award for an Outstanding Arachnology Student.



Impressions from the Congress Excursions



After a pleasant and informal outdoor “Israeli meal” (falafel with traditional pita-bread), arachnologists went out at night, not for party & beer (this came later, anyway), but for hunting scorpions and other night-active animals.



The Bedouin tent on the way to Zin springs

Itai Opatovsky, Eran Gefen and Efrat Gavish-Regev had the responsibility to take hundreds (or so it seemed!) of arachnologists out in the Negev desert at night, with glass tubes full of EtOH and plastic cans in which, occasionally, any kind of animals (invertebrates and vertebrates poisonous or not) could be found. I personally collected/observed a few species of scorpions (one of them *Leiurus quinquestriatus* was actually the most dangerous found in Israel, one Mediterranean gecko, a few *Lycosa*, several gnaphosids and one rough-tail rock agama. I heard about discoveries of *Idiops*, *Latrodectus pallidus* and *L. revivensis* and about the observation of several snakes, including the frightful black cobra of the Negev. Luckily nothing happened, so everyone could proceed to the local IsoPub and spend there the rest of the night, talking about what was found – and what was not.

Day three began very early with the congress excursions. Three programs were offered: Nature tour, Adventurous hiking tour and Historic tour. I personally took the Adventurous hiking tour in the desert, that included a picturesque breakfast on the top of Avdat highlands-plateau, a pleasing coffee/tea in the desert, a refreshing dip into a 3x3x8 meters (where 8 is the depth) A'kev spring (Ein Ak'ev) pool, a very adventurous return trip to Midreshet Ben-Gurion in a 4x4 amazing truck and a final chill out at the Neve Midbar SPA.

Almost half of the participants joined the Nature tour that began with a view from the Halukim ridge towards the Zin plateau, Hatira ridge, Avdat highlands-plateau and the Zin cliffs. After a short breakfast the group started the hike along the archaeological ruins, and various arthropods were

encountered. After few hours of collecting the group continued by bus to the very impressive oasis called Avdat Spring (Ein Avdat) nature reserve for a moderate hike. The historic tour-group started the day a bit later and focused on life in the desert at Avdat and Revivim. Avdat is the most important historical city in the Negev on the Incense Route, between the 7th and the 1st centuries BCE. Avdat was inhabited by Nabataeans, Romans and Byzantines and was declared a World Heritage Site by UNESCO in 2005. Revivim is a Kibutz in the Negev, established before the Israeli state as one of three lookouts.

All three groups met for lunch at the Ramat Negev research and Development farm. Some of us needed *siesta* before joining the Pojtke Dinner and the stronger enjoyed the SPA.

Sara Goodacre opened day four with a fascinating talk on dispersal behaviour in agrobiont spiders. She combined the study of genetics, microbiology and ecology in an integrative extensive work that focuses on endosymbiotic bacteria and their capacity to reduce the tendency for aerial dispersal in female spiders, but also, the sensitivity of spiders to insecticides.

Agroecosystems were the focus of the following symposium, chaired by Ferenc Samu, who also gave a talk on the effect of intense grazing on spider assemblages. Ecological processes like dispersal (Laia Mestre), colonization, fragmentation, agriculture intensification and habitat heterogeneity with respect to forests (John Hermann, Roman Bucher), agricultural landscapes (Peter Gajdoš, Yoni Gavish) and crop fields (Itai Opatovsky, Valeria Hochman-Adler) were the main topics of the session.

A small session chaired by Milan Řezáč on behaviour and life history (Matjaž Gregorič and Simona Kralj-Fiser) ended the morning session. Itai Opatovsky's talk was awarded the Oxford University Press Student Award in Arachnid Ecology. Milan Řezáč also chaired the first session of the afternoon, focused on Ecology. Topics of the talks covered several aspects of forest ecology, including influence of management (Elvira Melnichnova, Pao Shen Huang) and structural factors (Hsien Chun Liao) on spider assemblages. Some new indices to characterize ecological communities were outlined by Mauro Paschetta and an interesting ecological model was presented by Boris Leroy on the future distribution of *Dolomedes plantarius* in respect of climate change. Boris's talk was awarded with the Yale University Press Student Distinction Award in Arachnology.

The morphology session was chaired by Dimitar Dimitrov. Several aspects of arachnid morphology were outlined, with special reference to wolf



spiders (Peter Dolejš), funnel web and orb web weavers (Elizabeth Matthew), linyphiids (Judith Wunderlin), harvestmen (Miriam Schaidler) and sexual dimorphism (Rudy Jocué). Miriam Scheider's talk was awarded with the Arachnologische Gesellschaft Student Award in Arachnology (first prize for oral contribution).

The second poster session (23 posters) focused on Agroecology, Social Spiders, Behavioural Ecology, Prey Specialized Spiders, Ecology. Chen-Pan Liao and Huda Al-Beirut were awarded the Oxford University Press Student Distinction Award in Arachnology (first and second prize, respectively). Three more Cambridge University Press Student Award in Behavioural Ecology were assigned to Mu-Yun Wang, Naama Berner-Aharon and Reut Berger-Tal (first, second and third prize, respectively).

The congress dinner, was held at Sfinat Ha'Midbar (Ship of the Desert), a Bedouin center for Desert tourism and Bedouin hospitality, where we sat cross-legged and had a delicious dinner with tahini, hummus, rice and other local delicacies. The gala dinner ended up with an amazing performance of two local musicians, who easily encouraged the entire arachnologist crew to play all kinds of exotic instruments (Yael Lubin also "played" didgeridoo) and perform exotic dances (Yuri Marusik as "prima ballerina"). A wonderful evening ended up with a great effort by the organizers to set up a last minute bar in Midreshet Ben-Gurion for the thirsty Arachnologists (basically a hundred people asking for party & beer in the middle of Sede Boquer campus).

The last day (that, finally, was also the day of my talk), Maydianne Andrade opened the session with a plenary lecture on developmental and behavioural plasticity in the Australian redback spider (*Latrodectus hasselti*). Maydianne provide persuasive arguments to show that spiders (especially those showing constrained male mating opportunities) are excellent models for examining links between demography, selection and plasticity.

Jutta Schneider and Trine Bilde opened the second session on behavioural ecology, with six talks focusing on more aspects of behavioural studies. Sexual selection (Maria Albo, Tai Shen Lin), matings (Iara Sandomirsky), sexual cannibalism (Lenka Sentenska), inbreeding dynamics (Steffi Zimmer) and courtship behaviour (Alberto Chiarle) were the main topics of the session. Yael Lubin chaired the session on Social Spiders, which is also one of the main focuses of her research. The session included eight talks, most of them held by Trine Bilde's, Deborah Smith's and Yael Lubin's research teams. The session provided a wide overview on sociality in spiders, especially focusing on population structure, genetics

and social systems at species level. Speakers made reference to different species of *Stegodyphus* (Reut Berger-Tal, Deborah Smith, Jesper Bechsgaard, Lena Gristed, Virginia Settepani), *Anelosimus* (Guadalupe Corcobado), *Argyrodus* and *Faitidus* (Yong-Chao Su, who was also awarded with the Cambridge University Press Student Award in Behavioural Ecology).



Congress dinner and after-dinner party at Sfinat Ha'Midbar

An interesting talk was given by Marija Mejer, explaining the occurrence of sociality throughout the world by means of a global analysis (the talk was awarded with the Cambridge University Press Student Award in Behavioural Ecology). My talk was scheduled in the very last session of the congress (Biogeography), chaired by Christian Kropf. Christian Komposch, myself, Theo Blick and Léon Baert presented their talks focusing not only on biogeography, but also referring to some ecological and conservation issues, like human disturbance, environmental management, endemic species conservation and global change dynamics.





Congress photo

To sum up, the hosts did an excellent job, the Congress was very well organized and resulted in a fruitful experience for everyone attending. Arachnologists, as usual, provided a lively, friendly and unique atmosphere that perfectly fitted in the amazing location of Sede Boqer. Our sincere thanks for such splendid organization go to Yael Lubin, Efrat Gavish-Regev and to the rest of the organizing committee.

News from ESA general assembly

By Jason Dunlop

The 26th Congress ended with the ESA General Assembly. In brief, several points were raised by the President including the current status – and future development – of the website, the possibility that we will support the 'Spiders of Europe' project <http://www.araneae.unibe.ch/> and the results of a questionnaire about future proceedings formats and the corresponding decision to publish congress papers in the 'Arachnologische Mitteilung'. This was followed by the Treasurer's report (covering the years 2007 – 2010), with the most important development being the transfer of the account to Bern. The next European meeting (2012) will be held in Ljubljana (see also below). Elections to council resulted in the re-election of Ferenc Samu, the election of Maria Chatzaki (previously on council as congress host) and the new election of Holger Frick, Efrat Gavish-Regev and Marco Isaia. Finally, Seppo Koponen and Søren Toft became new honorary members of ESA. Further details of the General Meeting can be found in the 'Minutes' hosted on the society website.

Announcements

- **The 27th Congress** will be hosted by Matjaž Kuntner and EZ Lab, at the Scientific Research Centre of the Slovenian Academy of Sciences and Arts, in Ljubljana, Slovenia between 2 and 7 September 2012. During the ESA assembly Matjaž gave a short presentation about the congress and its venue, highlighting its inviting setting in the old town part of Ljubljana, the architecturally unusual buildings where the talks will be held, and the natural landscapes of Slovenia, with mountains, deep forests and the amazing caves around the area.



In order to plan the event better, Matjaž and his team asked all members to pre-register at: <http://ezlab.zrc-sazu.si/eca2012>.

- **The Second Issue** of the Newsletter will focus on recent publications of the members of the Society. Please send us full citations and comments about your recent arachnological works.
- **ESA is on Facebook!**
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