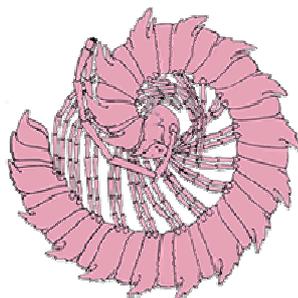

CONFERENCES

**17TH INTERNATIONAL CONGRESS OF MYRIAPODOLOGY****23-26 July 2017, Krabi, Thailand****Conference logo** – the Thai shocking pink dragon millipede

Having been a regular attender at International Congresses for several years but missing the last two in Australia and the Czech Republic, it was very interesting to see what has changed in that time.

The Congress location was Krabi in southern Thailand at the Maritime Park and Spa (17km from the sea and without a spa – but nonetheless a lovely location!). It was obviously very used to housing conferences and had a small conference centre in a separate building to the hotel proper. The grounds of the hotel were beautiful with pools containing lotus flowers and views of the nearby karst landscape as well as a nice pool to cool off in after sessions – something I made use of along with many other delegates.

There was a good turn out with delegates from a wide range of countries attending, from Australia to South Africa and Finland to Vietnam. The scientific sessions covered three days (instead of the previous four), which did make for some long sessions. Our Thai hosts were delightful and equally impressive was the number of people working on myriapods now in Thailand, most as a result of the encouragement by Somsak Panha. Key note speakers were Henrik Enghoff giving what was effectively an update on ‘Anamorphosis International’ (Enghoff *et al.* 1993), Sergei Golovatch about Himalayan Millipedes and Greg Edgecombe on recent developments in centipedes.

Interestingly taxonomic presentations were by far in the majority, with genetic techniques being used to complement conventional morphology. Examples included Ruttapon Srisonchai studying the Thai dragon millipedes and Paul Marek’s group in the USA on Xestodesmids where colour patterns are helping to distinguish between species of this group of polydesmids (not something we are able to use much in the UK). We also learnt that the percentage genetic difference, usually a guideline for distinguishing species, seems not to be so useful for centipedes where a massive 15% is not uncommon.

Another noticeable improvement has been the technology available to study both whole animals and parts of them. Micro CT scans of myriapods in Burmese amber enabled Thomas Wesener and his student Leif Moritz to study, for example, gonopods within the body of an animal embedded in Burmese amber as well as gain amazing pictures of the habitus.

This modern technology has enabled good quality scans of slides and photographs of specimens to be used instead of sending out type specimens on loan and risking them being damaged or lost. Peter Decker spoke about the Virtual Microscope Slide Collection.

The Onychophora, traditionally included within the congresses were rather poorly represented with just two papers but we were treated to an insight into Chinese Pauropods by Changyuan Qian, good to know there is still someone in the world attempting to study these difficult creatures!

Notable was the very low number of ecological studies, Karel Tajovský presented an update on his long running study of the millipedes along an altitudinal gradient in the West Tatra Mountains. Pitfall

trapping has been carried out in these study sites intermittently since 1992 which is no mean feat as I can testify having run traps for a similar length of time, but mine don't involve long walks up mountains to service them! Millipedes and impacts relating to climate change were examined by Ivan Tuf who compared the impact of a rise in temperature on two species of millipede and Bruce Snyder studying the impact of increased nitrogen on millipede biomass and survival.

There were however two lovely studies involving very careful observation in contrast to the special equipment required for many of the studies: *Bachyocybe lecontii*, a Platydesmid (now referred to as feather millipedes) was observed in some detail by Victoria Wong who established that the first stadium has five pairs of legs a departure from the norm in millipedes. Irina Semenyuk reported on her work looking at niche separation of millipedes in the Vietnam jungle with distinct wet and dry seasons, there was clearly massive amounts of data (and hours of watching) behind the summary that she presented.

We were treated to several short videos of centipede behaviour by Matthes Kenning & Andy Sombke as part of their paper about centipedes 'sensing from both ends' including some amazing footage of *Theatops* using its hind legs to carry freshly caught prey. This genus is dear to the hearts of some BMIG members who had the fortune to find several specimens of this spectacular creature in Galicia on a field trip in 2004. We also heard *Alipes grandis* stridulate by rubbing its hind legs together and learnt that *Scutigera* has the same number of tarsomeres as antennomeres (500).

Another noticeable change from before, to me, was the International flavour of the research groups. There are still some clear groups within countries, like the Paul Marek group in Virginia, USA working on millipede systematics and ecology and Carsten Muller's group in Germany working on centipede physiology which obviously derive great benefits from being close research groups. However, there were also people like Nesrine Akkari, Greg Edgecombe, Henrik Enghoff and Sergei Golovatch working across country borders to carry out their own research and encourage and support new young researchers. This was perhaps particularly marked in the case of Thailand with concerted input over the last few years which have really born fruit in the surge of work. Former students are now spreading out and starting their own research groups, helping to spread the word. Although the UK featured in this international co-operation through Greg Edgecombe and Gonzalo Giribet it was sad to note that there is a distinctly impoverished number of people attending the congress from our country in comparison to previous years where we have frequently been the envy of other countries in the number of active workers – this makes me wonder where our next generation of ecologists and field biologists might come from.

One particularly nice inclusion (for me) was a paper on the conservation of myriapods in Brazil. Conservation does not generally get much prominence at the Congresses although there was a notable exception in the work presented by Michelle Hamer about millipedes in South Africa in 2002. Manoela Karam-Gemael from Brazil evaluated the Red Data Book status of myriapods in different habitat types across the county with a view to highlighting the importance to policy makers.

Polyxenids, often largely forgotten as a myriapod group, was represented by two studies from the Pacific Islands and Australia (Megan Short and Cuong Huynh). It is always interesting to hear more about the diversity of this group which is represented in the UK by just one species.

Closer to home, Jacques Geoffroy presented an update on the distributions of myriapods in France. There now seem to be a considerable number of amateurs in France working in a very similar way to BMIG and contributing lots of distribution data, especially for Brittany, and working towards a distribution atlas at department level. As a consequence of this increase effort *Polydesmus aesthenestatus*, originally from Corsica and with one record in the Maritime Alps has been found very

commonly in Brittany (and now in Ireland) and *Cylindroiulus pyrenaicus* has been found to have a disjunct distribution in the Pyrenees and Brittany (and the UK). Dragan Antic discussed the taxonomy and distribution of the millipede family Anthroleucosomatidae which he described as the ‘waste basket’ for Chordeumatids and which includes *Anamastigona pulchella*, recently found in the UK (Gregory et al. 2015).

Collecting techniques were discussed in relation to field work in the USA and the enthusiastic Jackson Means demonstrated his millipede rake. This simple gadget is helpful for turning over fallen logs and works well for colourful species like Xestodesmids living in areas with lots of poison ivy.

The traditional excursion on the middle day of the congress was on day three and saw a 3-way split with a few people able to go millipede hunting while the rest could choose between two different boat trips to admire the islands of limestone karst made famous by films such as ‘the Beach’ and the James Bond films. My tour was able to snorkel over a coral reef and explore an amazing lagoon in the middle of one of the islands before having a very rough journey back - memorable but not perhaps as relaxing as it had sounded on paper!

The final afternoon included the formal CIM General Assembly where the next Congress was confirmed as Budapest in 2019. The Proceedings of the Thai Congress will be published in Zookeys hopefully in February 2018. Many congratulations to the Thai organisers, a great team of friendly people who were amazingly enthusiastic about our favourite groups of animals!

Various millipedes had been found in the hotel grounds but I was particularly thrilled to find some (tiny) Platydesmids in the forest around a temple I visited near to the congress venue after the meeting (tipped off by Henrik Enghoff) and even more so when, after climbing the 1267 steps up to a temple on the top of one of the karst rocks I sat down to rest and a dragon millipede walked across the marble floor in front of me! He was a very fine dark brown/black with orange spines, a fitting end to a congress with a shocking pink dragon millipede as the logo!

References

- Gregory, S., Davidson, M. B., Owen, C. and Anderson, R. (2015). *Anamastigona pulchella* (Silvestri, 1894) – First British records for England, Scotland and Wales (Chordeumatida: Anthroleucosomatidae). *Bulletin of the British Myriapod & Isopod Group*, **28**: 31-37.
- Enghoff, H., Dohle, W. & Blower, J.G. (1993). Anamorphosis in millipedes (Diplopoda) – the present state of knowledge with some developmental and phylogenetic considerations. *Zoological Journal of the Linnean society*, **109**: 103-234.

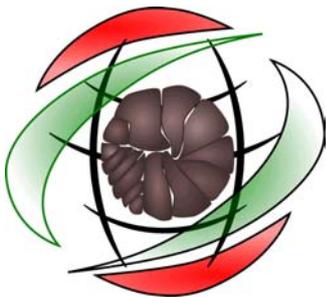
Helen Read



The real thing !



Conference photo ~ 17th International Congress of Myriapodology



THE 10TH INTERNATIONAL SYMPOSIUM ON TERRESTRIAL ISOPOD BIOLOGY (10TH ISTIB)

The 10th ISTIB was held at Budapest, Hungary this year. The meeting was hosted by the University of Veterinary Medicine (UVM) and by the Hungarian Natural History Museum. The main organisation activity was undertaken by the Hungarian Biological Society.

<http://bio.univet.hu/istib2017/main.html>

The first symposia in the series was held in London, UK, in 1983, which was followed by eight others: Urbino, Italy (1986); Poitiers, France (1990); Haifa, Israel (1997); Iraklion, Greece (2001); Aveiro, Portugal (2004); Tunis, Tunisia (2007); Bled, Slovenia (2011) and Poitiers, France (2014).

The opening plenary lecture in Budapest was given by Heikki **Setälä** (Department of Environmental Sciences, University of Helsinki, Lahti, Finland) with the title '*Soil fauna and ecosystem services – what's the connection?*'

Diverse topics were offered on the latest findings on woodlice organized into seven sessions: 1. *Taxonomy – Systematics – Phylogeny*; 2. *Biodiversity – Faunistics – Distribution*; 3. *Ecology – Behavior*; 4. *Ecotoxicology*; 5. *Agrobiolology*; 6. *Morphology*; 7. *Physiology and isopod-microbial interaction*. Each session started with an invited talk.

Helmut **Schmalfuss** (Stuttgart, Germany): *Woodlice, sowbugs, slaters and pillbugs – a historical survey of who did what to explore the biology of terrestrial isopods*

Spyros **Sfenthourakis** (University of Cyprus, Dept. of Biological Sciences Nicosia, Cyprus): *Oniscidea as Model Organisms in Ecological Biogeography*

Matty **Berg**, Ooms A, Dias ATC (Vrije University, Amsterdam, The Netherlands): *The Reaction of Communities and Ecosystems to Extreme Climate Events: a Trait Approach*

Katalin **Szlavec**, Vilisics F, Hornung E (JHU, Baltimore, US): *Isopods in Urban Environments – an Overview*

Sándor **Farkas** (Kaposvár University, Hungary): *Possible ecosystem services of terrestrial Isopods*

Jasna **Štrus**, Vittori M, Tusek Znidaric M, Znidarsic N (Ljubljana, Slovenia): *Architecture of Exoskeleton in Troglobitic and Epigeal Woodlice*

Andreas **Ziegler**, Hild S, Fabritius H-O, Griesshaber E (Ulm, Germany): *Biominalisation in Terrestrial Isopods: Epithelial Calcium Transport and the Relation between Structure, Composition and Function of Mineral Composites*

The meeting was attended by 76 registered participants from 21 countries.

Similar to the last two ISTIB meetings, conference participants have the opportunity to publish their results in a special issue of ZooKeys (Pensoft Publishers; <https://zookeys.pensoft.net/>).

After the Symposium there was a short course organized by Stefano Taiti (who was assisted by H. Schmalfuss, G. Montesanto and I. Soares Campos-Filho) on the taxonomy and systematics of terrestrial isopods aimed at graduate and postgraduate students and young researchers.

Erzsébet Hornung



Conference photo ~ 10th ISTIB