

2017 APIMONDIA NEWSLETTER

N°4



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PH: Philip McCain's trip to Iran with the Organising Committee included Dr. Wolfgang Ritter former head of the Apimondia Standing Commission on Bee Health and Dr. Kaspar Bienefeld, who were the main guest speakers at the event .



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Editorial

On my travels to different countries I can't help but notice that at different times there are different emphases on the problems beekeepers face. From 23 January I had the pleasure of attending the 1st International and 9th National Iranian Honey Bee Research Congress in Karaj, Iran. This was my first time in that part of the world and I soon learned that they have the same difficulties we all have. The level of expertise in the world of beekeeping was evident for all to see and the quality of the presentations was so encouraging. I was informed that Iran has over 70,000 beekeepers that produce an average of 78,000 tonnes of honey per year. They are constantly looking at ways of exporting more of their honey but sadly due to the political situation in that part of the world it is not easy for them to do so. As I have said in the past the humble honeybee does not recognise borders, races or religions, if only, if only!!



Andrej Sever presenting picture of Bee-house to President of Wheelchair Association in Slovenia.

In very recent times I have been to Serbia and Slovenia and will write more about these visits in the next Newsletter. One very interesting programme in Slovenia has to do with people in wheelchairs who are now keeping bees. Many years ago I wrote about using honeybees as a therapy for people with disabilities, both Physical and Intellectual. In Slovenia this is now a reality.

One problem that seems to be occupying the minds of many beekeepers is that of the Chemicals and many organisations are working at highlighting the impact that insecticides and pesticides are having on our very existence. Glyphosate for example has been used for decades and is regarded as a toxic herbicide. It is being sprayed on the fields where we grow our grain, vegetables and fruit. Local authorities use it on parks and gardens and some reports now indicated that many people when medically examined has reported toxic poison in their urine. Indeed we have many studies that now show that it is probably carcinogenic.





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President with Wheelchair Beekeepers in Slovenia

In the European Union there are a number of organisations who working on having it banned and taken off the market. As you can appreciate Monsanto, who manufacture this product, are none too happy about such a prospect, as they earn millions every year form its sales.

There are a growing number of lobby groups working on this and I wish them well in their endeavours.

Last year, the European Commission was meant to relicense the use of Glyphosate for 15 years, but it came under huge pressure from hundreds of thousands of Europeans. Due to public pressure the Commission could only agree on a temporary measure extending the licence for 18 months. It fair to say we need to re-think how we do our farming or the health of generations to come will be affected by our in-action. Its also fair to say that companies like Monsanto, Syngenta and Bayer make their millions from the current way we do farming that are may be leaving us with toxic pesticides, GMO's, green deserts. We know they are doing everything in their power to protect their interests, so we must do the same.

Finally I should add that in Apimondia we have a policy of not accepting financial assistance from the above named companies.



Philip McCabe

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By Dr. Cleofas Rodriguez Cervancia
(PHI)

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MALAYA

INTERNATIONAL MELIPONINE CONFERENCE AND CARNIVAL PUTRAJAYA 2017 (IMS3C-2017)

Mr. Abu Hassan Jalil, a beekeeping researcher and consultant, is organizing the event in collaboration with the Putraya Holdings, Genome Malaysia and other government and non-governmental organizations.

RATIONALE:

The role of stingless bees in pollination of economic and wild plants is highly recognized. Being native to Asia, stingless bees are more resistant to pest and diseases, sustainable and better pollinators of native plant species compared with introduced bee species.

Moreover, valuable hive products like honey, pollen and propolis provide additional income to the farmers. Researches have shown that stingless bee propolis have high clinical value, thus, used in Apitherapy.

Several technologies have been developed for the management of stingless bees for crop pollination and production of honey, pollen and propolis. However, there are still enormous researchable areas to be explored, such as biology, systematics and product characterization for clinical and industrial uses.

This conference and carnival will provide forum for bee researchers, policy makers, farmers, beekeepers and students to discuss topics related to stingless bee biology and management, product processing and utilization. The specific objectives are as follows:

- a. To present informative talks on stingless bee biology, diversity and systematics and apitherapy
- b. To conduct workshop on the following topics: identification of stingless bees, Methods of Harvesting and Processing of Honey, Pollen and Propolis and Honey Sensorial Analysis
- c. To forge collaboration among stingless bee scientists on stingless bees researches

CALL FOR PAPERS

Topics from interest

- # Queen developmen or breeding
- # invitro provisioning and hatching of eggs
- #Honey: harvest techniques (inc. pump innovations)
- #Honey: properties and analyst method
- # Omics Technologies – Metabolomics, Proteomics, Genomics e.g. DNA sequencing + Microbiome & etc.
- # Medicinal Study of Stingless Bee Products (Honey, Beebread, Propolis, etc)



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Behavioral scrutiny and caste development (* the drone is NOT a caste, it is considered a gender...

Only females are classified in castes (Roubik pers. Comm. 2016)

Bee Housing and Nest Hosts

#Pests and predators and P&D management

#Meliponiculture and Commercialization

#Propolis: properties and Analysis methods

Beebreath / Pollen: properties and Analysis methods

Flight and/or Foraging patterns

Others related to Meliponiculture

General Information for Poster and Oral Presentation abstract:

- Only abstract submitted in English will be reviewed
- The abstract should not exceed 300 words
- Abstract cannot contain special symbols, diagrams, photographs or tables
- Abstract title is restricted to 10 words
- Abstracts submissions by email only, post or fax will not be accepted
- Closing date for submission of abstracts is 31st Jan 2017
- Accepted full Papers must be submitted by 15th Feb 2017

** Posters A0 size Velcro strapped back.

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PHILIPPINES

23RD BEENET CONFERENCE AND ECHNOFORA

BEENET Philippines will be holding its 23rd meeting on May 4-6, 2017 in Cebu City, Central Philippines located in the Visayan region. This year theme is "Building a Sustainable Bee Industry". The scientific program includes topics on bee biology, genetics, pathology, apitherapy and extension. There will be a beekeepers' forum where problems and prospects of beekeeping will be discussed. There will also be bee photo contest and various games related to beekeeping.

BEENET is a non-stock, non-profit corporation duly registered with the Philippines Securities and Exchange Commission. It was incorporated to coordinate national efforts, activities and programs to protect, improve, strengthen and develop the Philippine bee industry; to establish marketing, research and development centres. BEENET is a member of Apimondia and Asian Apicultural Association (AAA).

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By **Dr. Cristina Mateescu (ROU)**
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Apimondia Scientific Commission on Apitherapy

The 21st Congress of UNAF (National Union of French Beekeeping) from Clermont Ferrand.

Held in France between the 27th -30th October 2016 and had some public sessions of conferences where important researchers in various beekeeping related fields attracted a large number of people.

The apitherapy conference held on the 28th October, and organized by the AFA (Association Francophone d'Apithérapie) under the auspices of UNAF, gathered together more than 1,100 participants. Actual topics related to propolis, royal jelly, honey, bee venom, allergies related to the application of bee products in human treatments were as many subjects of interest.

They were the presenters and their conferences: Prof. Mesbah Lalouel – University of Jijel, Algeria – Laboratory of Molecular Toxicology, spoke about the “Possibilities of propolis in cancer”; Dr. Cristina Mateescu (Romania) President of the Apitherapy Commission, senior researcher at the Institute of Food Bioresources in Bucharest – “Royal Jelly between myth and reality, between remedy and medicine”; Dr. pharm. Olivia Métral “Honey medicine of yesterday or of tomorrow?” Dr. Philippe Garcia - veterinary surgeon specialized in canine – equine therapy - “Application of bee products in veterinary medicine”; Dr. Andreas Hartmann – “Therapeutic possibilities of bee venom in Parkinson disease” and dr. Nanotte-Varly – specialist in allergy – “Are bee products not recommended to allergic patients? – Probably not...”

These were all very interesting topics, which offered very fruitful debates between the speakers and the attendants and also a new approach to the use of bee products in human and animal treatments. This was a very good and well organised event with an excellent professional team. Special thanks to our colleague Nicolas Cardinault – member of the Commission, who well deserves all our consideration.

The 6-th Apimedica and 5-th Apiquality Symposium of Apimondia was held in Rome, Italy, at the end of November (22nd – 25th). The symposium was organized by the Experimental Zoo-Prophylaxis Institute (IZS) “Mariano Aleandri” and addressed the most relevant issues pertaining to apitherapy and the qualitative aspects of the production and use of bee products. The Symposium brought together researchers, medical doctors, pharmacists, biologists,

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biochemists, engineers, students, beekeepers, a number of important representatives from 16 countries. The symposium included oral presentations, a poster session, keynote speakers and specific sessions on the pharmacology and clinical applications of hive products; clinical aspects in human and veterinary medicine. A technical tour was organized during the last day of the symposium. Special thanks to Rr. Giovanni Formato – the President of the Organizing Committee for his efforts to make an interesting and fruitful event.

New results in propolis research!

(<https://www.hindawi.com/journals/ecam/2017/5163575/>)

1. In *Evidence-Based Complementary and Alternative Medicine Vol. 2017 (2017)*, <https://doi.org/10.1155/2017/5163575>, Stefania De Marco, Miranda Piccioni, Rita Pagiotti, and Donatella Pietrella, from the Biochemical Sciences and Health Section, Department of Pharmaceutical Sciences, University of Perugia, published an interesting research article about “Antibiofilm and Antioxidant Activity of Propolis and Bud Poplar Resins versus *Pseudomonas aeruginosa*”. According to authors, this research is among the first to demonstrate that propolis and poplar buds resins extracts can influence biofilm formation of *P. aeruginosa*. *Pseudomonas aeruginosa* is a biofilm-forming bacterial pathogen responsible for the occurrence of severe lung, skin, and systemic infections. Biofilms formed by these bacteria, are associated with chronic lung infection, which is the most severe complication in cystic fibrosis patients. The results are promising and show that propolis can be used as an adjuvant in treating *P. aeruginosa* chronic infection not only for preventing the biofilm formation, but also for its anti-inflammatory and antioxidant properties and its low toxicity.

Fatty Acid and Proximate Composition of Bee Bread

<https://goo.gl/tUVTFY>

Food Technol Biotechnol. 2016 Dec; 54(4):497-504

The pollen spectrum, and fatty acid composition of bee bread samples of different botanical origins were examined. The samples were all identified as monofloral, namely *Castanea sativa* (chestnut) (94.4%), *Trifolium spp.* (clover) (85.6%), *Gossypium hirsutum* (cotton) (66.2%), *Citrus spp.* (61.4%) and *Helianthus annuus* (sunflower) (45.4%).

Among all, cotton bee bread contained the highest level of ω -3 FA's, i.e. 41.3%.

Unsaturated to saturated FA ratio ranged between 1.38 and 2.39, indicating that the bee bread can be a good source of unsaturated FA's.

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By Dr Jeff Pettis (SWE)

President of Scientific
Commission on Bee Health

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Apimondia Scientific Commission on Bee Health

Honey bees of European origin in most of the Northern and Southern Hemispheres struggle with Varroa parasitism. But bees have and can evolve natural defences against this parasite. Many beekeepers and researchers are working to develop mite-tolerant or resistant honeybee stocks. The research of Dr. Fanny Mondet at the INRA research station in Avignon, France is helping us to understand how bees defend against Varroa mites. Please see the link below to one of her recent articles. We need more researchers such as Dr. Mondet and she is a welcome addition to the team that works under the direction of Yves Le Conte in Avignon.

Dr. Mondet plans to continue research on Varroa and bees and is bringing much insight and energy to the difficult task of defeating Varroa. So as not to put all the weight on Dr. Mondet; I also would like to highlight the work of the beekeeper, John Kefuss, who has successfully selected bees in France that tolerate Varroa without treatment (see article: Selection for resistance to Varroa destructor under commercial beekeeping conditions, Kefuss et al (2016): J of Apicultural Research, DOI. <https://goo.gl/Hk7uNP>)

The work of this two, one scientist and one beekeeper, and many others give us hope that we can find more sustainable means to manage honey bees with less chemical us within beehives. There was a well-attended meeting in Galveston, Texas, USA of beekeepers from across North America that I was pleased to attend and represent Apimondia. The meeting was hosted by three organizations, The American Beekeeping Federation, The American Honey Producers Association and the Canadian Honey Council. Many thousands of beekeepers and scientists attended the meeting and honey adulteration was high on the agenda. Other topics included bee trade between US and Canada, almond pollination, Varroa controls and pesticides. A concurrent meeting was held of the American Bee Research Conference (ABRC) where many scientific presentations were made on topics from Varroa to virus and pesticides to nutrition. The proceedings of the ABRC is published in the spring and offer a glimpse of emerging research on bee pests and problems (search ABRC proceedings in the near future).

The upcoming Apimondia meeting in Turkey was promoted with an excellent booth in the trade show that highlighted the exotic beauty of Istanbul and the dedication of the host country to make this a great meeting. Of course the Canadians were also promoting the 2019 meeting in Montreal. It was a good audience to speak to and I had the opportunity to discuss both the meeting in Turkey

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and Canada with many of those in attendance. I was pleased to receive an award for best scientific presentation from the American Beekeeping Federation for a talk I presented on the politics of pesticides and bees. I will continue to work to have those from North America become more involved in Apimondia. Another bid for the U.S. to host Apimondia in the future is something I will continue to press for. The Canadians did a great job in 1999 in Vancouver and I expect the same in 2017 in Montreal; make plans to attend both Istanbul and Montreal.

MEETINGS ON SMALL HIVE BEETLES:

The Introduction of the small hive beetle into Italy has caused increase concern within Europe. A meeting of the COLOSS taskforce on small hive beetles was held on 26-27 Jan. in Wageningen, Netherlands and a report from that meeting should be posted on the COLOSS website soon (coloss.org). Not only is Europe a new expansion for small hives beetles but Asia (Philippines) and South America (Brazil) have both recently reported small hive beetles for the first time.

If you are in Europe and want to hear the latest on small hive beetles, plan to attend the Become and Apimell meetings in Piacenza, Italy on March 2-5. The meetings will discuss the current status of small hive beetles in Italy, means to prevent spread to other areas and will bring together beekeepers and scientists to discuss the issue in depth. See www.become2017.it for more information

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Bees for Development request to support beekeepers affected by floods in Vietnam. Beekeepers in the very poor Province of Ha Tinh experienced terrible floods in October and November 2016. Livestock of all types were lost (bees, cows, pigs, hens) and people's homes greatly damaged. Bee hives were swept away. People in this Province know beekeeping well, and rely on this source of livelihood. If they can replace their bees and equipment by March, they can begin collecting and selling honey within a few months. They can divide colonies and replace their enterprise. Beekeeping can be one of the first enterprises that they can re-start quickly - and would welcome your help with this.

Please give what you can to this cause - every little helps. All funds will go directly to our partner organisation in Vietnam. You or your beekeeping group can donate here: <https://goo.gl/rVzPTV>



Severe floods affected Ha Tinh Province in October and November 2016

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Apis cerana beekeepers lost their bees and equipment



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I was reading a letter in the April 2015 edition of Bee Culture Magazine that finally motivated Bonnie Morse to organise the unique Bee Audacious event that took place in California in December 2016. In his letter, Mark Winston, Professor and Senior Fellow at Simon Fraser University in Canada, had called for 'Audacious ideas for the future of beekeeping', arguing that for honey bees to survive, and for their health to improve, there has to be agricultural change and evolution of beekeeping itself.

Bonnie set to work planning Bee Audacious, with Mark Winston, Marla Spivak and Tom Seeley joining her as advisors. And so it happened that a group of constructive, collaborative, and thoughtful people bringing experience from a wide variety of bee-related sectors, from six countries, and 24 States of USA, were invited to spend days, not listening to lectures, but provided with time and space to think and reflect on our approach to bees and beekeeping, and to audaciously suggest fresh ways to address some of the problems that bees face.

After two days of workshops, the Conference culminated with the presentation of new ideas aimed at shaking up the status quo of beekeeping and farming, to reverse a worsening epidemic in which it has become 'normal' for 50% of honey bee colonies in North America to die each year.

You can read more about the Conference in Bees for Development Journal 121

Or Visit this link to watch the Bee Audacious concluding panel presentations:
<https://goo.gl/ce2y1F>

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By Jodie Goldsworthy (AUT)
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Apimondia Regional Commission for Oceania

The Oceania region has been uncharacteristically wetter than usual during the Spring period leading into our summer beekeeping season. Consequently beekeeping conditions during the spring have been more difficult than usual.

In New Zealand this has had a significant impact on the production of Manuka with the New Zealand media reporting: "Some frustrated beekeepers have now declared our dismal summer the worst in two decades for honey-making - but it's still too early to say whether consumers will also feel a sting.

Apiculture New Zealand chief executive Karin Kos said the consistent message from beekeepers across the country was this had been a particularly bad season for yields, as poor weather kept bees from collecting nectar.

"We've had unseasonable weather conditions, and less predictable and shorter flowering seasons, and that is absolutely affecting honey production this year."

While conditions had varied by region - summer had been cold and windy on the west coasts of both islands, but dry and windy on the North Island's East Coast and in the Far North - only a few isolated parts of the country had received the weather they'd wanted.

"I'm new to the industry, but members are saying that things haven't been this bad for 20 years," Kos said. Yet, with the industry still three quarters of the way through honey collection, the full impact of the weather may not be known until as late as April." (New Zealand Sun, 26th January 2017).

Conditions in Australia whilst wet lead to a patchy honey production season for the Spring and Summer across the country with some beekeepers in the right areas producing reasonable quantities of honey and others finding it more difficult. The late summer conditions and early autumn prospects for honey production appear to be better than earlier in the season. The highly migratory nature of beekeeping in Australia means that beekeepers move their hives to many different predominantly eucalypt species every 4-6 weeks across vast distances.

Legislative or government regulations issues:

The new Australian Country of Origin labelling laws have now been passed into legislation by the Australian parliament. This will bring greater focus to all honey being imported into Australia as customers begin to demand knowing the origin of their products. Customer knowledge and interest in safe honey is heightened with customers awareness of the risks of honey adulteration rising.

The New Zealand beekeeping industry continues to work with their government on the development of rigorous standards that will apply to the labelling of Manuka honey. New Zealand beekeepers are working hard to ensure that customers can be confident in the quality of the products they purchase from New Zealand. Stronger regulations



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will help beekeepers fight against the risks to the reputation of New Zealand honey as a result of the practice of blending and extending quality New Zealand honeys with other honeys outside of New Zealand.

The first known incidence of shifting of bees using a helicopter was undertaken by Lindsay Bourke in Tasmania, Australia recently. Lindsay won the most prized honey for his collection of Australian honey at Apimondia in Korea in 2015.

Shifting bees with helicopters occurs regularly in New Zealand to access difficult terrain.

The first incursion of SHB in Australia was detected in 2002 and has since cost the local beekeeping industry millions of dollars annually.

Small Hive Beetle (SHB) is particularly active during warm and humid condition.

A Queensland-based research team – led by Dr Diana Leemon and Dr Andrew Hayes – is currently developing a synthetic lure to deploy in a trap to capture the beetle, as part of a project funded by the Honey Bee and Pollination Program. The research is also supported by the When Bee Foundation, an Australian not for profit organisation set up to support innovative research that aids honeybee health and in turn improves food security.

“To date, lab studies have identified compounds present in natural substances that are highly attractive to SHB,” Dr. Leemon said, “These compounds have been blended together into a lure to attract beetles towards a trap instead of a beehive, and field testing of the lure has started in January in various locations near active bee hives around Queensland.”

Trapping of SHB with a natural attractant is currently being carried out to gather information on the movement and behaviour of SHB, and this information will help determine the best time and place to deploy traps with the synthetic lure.”

Results of the trials are due mid 2017: <https://goo.gl/8it2wa>

Early notification is provided to beekeepers around the world that planning is now underway for the 3rd Australian Bee Congress whose focus will be “Pollination and Beekeeping for the Future”. Save the date now - 27th - 30th June - 2018 - Gold Coast, Queensland. The Australian beekeeping industry looks forward to working with Apimondia to develop this event under the Apimondia Symposium model. It is also working closely with the Australian and New Zealand Pollination industries through Horticulture Innovation Australia.

Horticulture Innovation Australia has recently made honeybee pollination a major focus of its new research initiative as the Australian horticulture industries place more emphasis on the importance of healthy honeybees to pollinate their crops. More details to follow.