TIBEES

13 | 14 | 15 PALAZZO DEI CONGRESSI
OCT 2016 **LUGANO**

Scientific Bee Health Symposium

The Ticino Beekeepers Association (STA) celebrates its 100th birthday.
The perfect age to organise a scientific symposium on the health
and wellbeing of bees and a celebration of the world
of beekeeping open to everyone.

Welcome to ... TIBEES

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TIBEES, Lugano 13-15 october 2016

The Ticino Beekeepers Association (STA) celebrates its 100th birthday.

In July of 1916 the ***STA*** was created. At that time a handful of forward thinking and enthusiastic pioneers had the idea to bring together the Swiss Italian Beekeepers into a society able to inform, promote and defend Beekeeping on a cantonal level. Among the tasks that were immediately given priority by the ***STA*** was training, consulting and scientific dissemination of knowledge related to the world of bees and beekeeping. Today, even more than ever, in times of profound and rapid transformation of the territory and the environment, the ***STA*** considers it important to ensure that all stakeholders, and in particular its members, are constantly updated with information on scientific and technical beekeeping.

This is where ***TIBEES*** comes into context. The ***STA*** has organised this exhibition to celebrate its first century of activity, with the precise intention of underlining the importance of Beekeeping, its science and application of the daily practices of an apiary. Mediated by a competent science.

The exhibition will take place in the magnificent and captivating surroundings of the city of Lugano; at the Palazzo dei Congressi with speeches by researchers on an international level - some of them amongst the most important actors on the world stage of Beekeeping Science. A welcoming place to encourage meetings and discussions and to organize an event that consists of a scientific symposium that places at its center the health of bees in its different facets. However, ***TIBEES*** is much more. During the three-day event ***TIBEES*** aims to create and strengthen the links between researchers and beekeepers, among beekeepers and consumers and finally stimulate the curiosity of the public to the fascinating world of bees. The hope of the Organising Committee is that what is sown in Lugano will blossom in years to come, ensuring better understanding and cooperation between all actors and professionals in the beekeeping world. This should not be difficult because, after all, the ultimate goal is common to all of us and that is to know better how to bring well-being to that wonderful insect that is the bee.

Welcome to the honey bee health symposium in Lugano

We are truly delighted to welcome you to the ***TIBEES*** scientific symposium being held in Lugano from Oct 13th to 15th, 2016.
We are gathered here in one place with some of the best honeybee health experts in the world. These experts have come to deliver their latest results on honeybee health and current beekeeping threats to those who are interested or directly concerned, such as the beekeepers. *Varroa destructor* remains the most significant problem in the beekeeping industry whereas the arrival of the small hive beetle Aethina tumida and the Asian hornet Vespa velutina, are worrisome. We are convinced that the symposium will allow us to close the knowledge gap and better prepare ourselves for the emergence of the latter two threats.

We would like to thank: all contributors for coming to Lugano and sharing their work in the form of a talk or poster; the organizers, particularly the ***STA*** (Società Ticinese di Apicoltura) crew, for this great meeting: without their work it would not have been possible; ***apiservice***, the Swiss sanitary bee health service, who remain, year-round, at the service of all Swiss beekeepers while offering training on technical beekeeping aspects.
Furthermore, we would also like to thank Lugano for welcoming us to this magnificent city.
Last but not least, we would like to thank all of you participants for making this meeting meaningful and successful. We trust, in the context` of the scientific excellence of this congress, that you will enjoy your journey to the ***STA*** organized Honeybee health symposium.

The Scientific committee

Jean Daniel Charrière
Head of the Swiss Bee Research Center, Agroscope

Benjamin Dainat
National Reference laboratory for bee disease at the Swiss Bee Research Centre and extension specialist at Apiservice

THE PROGRAM

Period	Time	Speakers	Title of the talk	Parallel programs
Thursday 13.10 evening	Since 14:00			Registration of participants
	18:30	**STA**	Opening of the congress and official part	
	19:00	**Dennis vanEngelsdorp (USA)**	Inaugural talk **Untangling the drivers of honey bee losses: An epidemiological approach**	
	20:00			Aperitif - Standing Dinner
Friday 14.10 morning	08:00			Opening of the doors + registration
	08:45-09:30	**Wolfgang Ritter (D)**	**The healty bee and her environment**	
	09:30-09:45	Mélanie Parejo (CH)	Genetic markers for improving mellifera honeybee conservation management	
	09:45-10:00	Eva Forsgren (SU)	Using genomics to improve AFB outbreak investigations	Poster session
	10:00-10:15	Loglio Giulio (IT)	Innovative tools for diseases diagnostics in field and laboratory	
	10:15-10:30	Teresa Renzi (IT)	Effects of combined stressors on bees: from field clues to laboratory evidence	
	10:30-11:00			Coffee break
	11:00-11:45	**Peter Neumann (CH)**	**Small hive beetle: where are we now and what can we do?**	
	11:45-12:00	Franco Mutinelli (IT)	Aethina tumida in Italy: eradication, containment and future perspectives	
	12:00-12:15	Marc Schäfer (DE)	Traps for detection and control of Aethina tumida	Poster session
	12:15-12:30	Nor Chejanovsky (IL)	Death of adult honey bees at the entrance of the colony: a lesson from a viral pathogen	
	12:30-12:45	Stephen Bell (IRL)	Parasites, Pathogens and the Sustainability of Northern Ireland's Honey Bees	
	12:45-14:00			Lunch break
Friday 14.10 afternoon	14:00-14:45	**Giovanni Formato (IT)**	**Varroa: fighting strategy**	
	14:45-15:00	Julien Vallon (FR)	Testing formic (MAQS®) or oxalic acid Varroa treatment applied in spring in order to improve colonies health and performances	
	15:00-15:15	Paul Page (CH)	Resistance mechanisms to Varroa in the Asian honey bees	Poster session
	15:15-15:30	Vincent Dietemann (CH)	What do we know and what do we not know about European Foulbrood	
	15:30-15:45	Panuwan Chantawannakul (TH)	Benefits, cost, and tradeoff of defense mechanisms in Asian honey bee	
	15:45-16:15			Coffee break
	16:15-17:00	**Peter Rosenkranz (DE)**	**Pheromones and the fight against Varroa**	
	17:00-17:15	Boris Pezzatti (CH)	Impact of the chestnut gall wasp on the chestnut honey production in southern Switzerland	
	17:15-17:30	Christina Kast (CH)	Pyrrolizidine Alkaloids in honey and pollen from apiaries with PA-containing plants in their vicinity	Poster session
	17:30-17:45	Matteo Lucchetti (CH)	Origin of Pyrrolizidine alkaloids in honey and their potential toxicity for honeybees	
Friday 14.10 evening	20:00			Gala dinner on the boat (upon registration)
Saturday 15.10 morning	09:00-09:50	**Paul Jungels (LUX)**	**Varroa resistance is not an utopia**	"Bee products market. Cooking course and honey tasting (upon registration)"
	10:00-10:50	**Daniela Laurino (IT)**	**Vespa velutina: Biology and first steps of the European Life project STOPVESPA**	
	11:00-11:50	**Christophe Praz (CH)**	**Wild bees: how to support the biodiversity of pollinators**	
	12:00-14:00			Lunch break
Saturday 15.10 afternoon	14:00-15:00	Paul Jungels (LUX)	Postenarbeit: Selektion für Varroaresistenz in der Praxis (in Deutsch)	"Bee products market. Cooking course and honey tasting (upon registration)"
	15:00-16:30	Bienengesundheitsdienst (BGD);Service sanitaire apicole (SSA); Servizio sanitario apistico (SSA)	3 ateliers ; Lutte d'hiver contre Varroa; formation jeunes colonies, élevage facilede reines (IT, DE, FR.)	
	16:30-17:30	Paul Jungels (LUX)	Atelier: sélection pour une abeille résistante à Varroa en pratique (FR, IT)	

Iratxe Zarraonaindia Martinez

***Apis mellifera* gut and head virome/microbiome survey: a spatio-temporal approach.**
Etude sur le microbiome et virome des intestins et de la tête d'Apis mellifera: une approche spatio-temporelle.
Studie über das Darm- und Kopf- Mikrobiom/Virom der Honigbiene Apis mellifera: Ein spatial-zeitlicher Ansatz.
Ricerca sul microbioma e viroma intestinali e della testa dell'Apis mellifera: un approccio spazio-temporale.

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NOTE:
[a]These authors contributed equally to the writing of this review;
[b]These authors coordinate together the parasite work package of BEEHOPE

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This study aims to characterize/monitor pathogens and commensals associated to honeybee gut and head combining classical and NGS methods. A two-year investigation of the spatio-temporal dynamics of viruses, fungi and bacteria will be conducted at 6 honeybee conservation centers. These conservatories, located in France, Basque country and Portugal, have been set up by the European Network BEEHOPE to preserve the genetic diversity of M lineage populations. 6 colonies per center are being highly monitored for 1) environmental variables (T and humidity), 2) colony dynamics (weight and brood pictures), 3) quantity and composition of pollen, and 4) visual inspection of particular diseases. We intend to include the microbiota/virome monitoring as an additional variable reflecting these colonies health status. To that end, we will collect 50 bees/colony at each highly monitored hives to determine the presence/absence of viruses most commonly linked to bee disease (ABPV, BQCV, IAPV KBV, SBV by PCR, and CBPV, DWV by qPCR), also Nosema (*apis* and *ceranae*) and foulbrood (European and American), together with exploratory analysis with flow cytometry and TEM. Moreover, bacteria and eukaryote communities on gut and hemolymph will be assessed through 16s and 18s rDNA genes sequencing, respectively. The study will give insights on co-occurrence and competition of bacterial pathogens and commensals, fungi and viruses of colonies subjected to very limited treatment intervention. This knowledge will contribute to a better understanding of those colonies health status that is highly valuable to ensure their survival, and to develop protective measures for the maintenance of healthy ecosystems.