42° Congreso Internacional de Apicultura / *42nd International Apicultural Congress*

APIMONDIA 2011

BUENOS AIRES • ARGENTINA

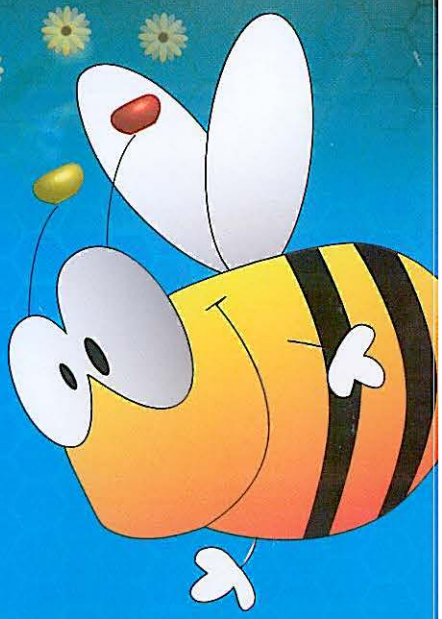
Del 21 al 25 de Septiembre / *From 21st to 25th September*

› Libro de Resúmenes

(Abstracts Book)

›Listado de posters

(Poster list)



CFI CONSEJO FEDERAL DE INVERSIONES

nexco Productos de Calidad

10:00 - 10:40	**41) Martín Giurfa - France (IS)** HONEY BEE LEARNING IN A SOCIAL CONTEXT: MODULATION OF APPETITIVE LEARNING BY AN ALARM PHEROMONE	*p.146*
11:20 - 12:00	**42) Walter Farina - Argentina** PAST EXPERIENCES ORGANIZE SOCIAL BEHAVIOR IN HONEYBEES: BASIC KNOWLEDGE AND APPLICATION FIELDS	*p.146*
12:00 - 12:20	**43) Michael Hrncir – Brazil (IS)** EFFICIENT FOOD EXPLOITATION BY STINGLESS BEES (*MELIPONA SEMINIGRA*): IS THE RECRUITMENT OF NAIVE FORAGERS REALLY IMPORTANT?	*p.147*
12:20 - 12:40	**44) Mark Kerry Greco – United Kingdom** ASSESSING DECISION MAKING IN STORER HONEYBEES USING DIAGNOSTIC RADIOENTOMOLOGY: DO HONEYBEES EXHIBIT OPTIMAL STORAGE STRATEGIES?	*p.147*
12:40 - 13:00	**45) Karl Crailsheim – Austria** TROPHALLAXIS OF NURSE BEES (*APIS MELLIFERA L.*)	*p.148*

SATURDAY 24 - ROOM AFRICA

SYMPOSIUM: Nutrition and physiology – 9:00 to 10:40

Chair: Karl Crailsheim - Austria

09:00 - 09:20	**46) Víctor Hugo Franco Olivares- Mexico** RESPONSE OF THE USE OF SUPPLEMENTS OF POLLEN ON THE PATTERNS OF PRODUCTIVITY IN POSITION AND THE BEE HIVE (*APIS MELLIFERA*)	*p.148*
09:20 - 09:40	**47) Jozef Simuth – Slovakia** QUEEN HONEY BEE LONGEVITY, AGING AND ROYAL JELLY PROTEINS: HAVE WE MOVED FORWARD?	*p.149*
09:40 - 10:00	**48) Jozef Van der Steen - Netherlands** VITELLOGENIN AS A PARAMETER OF HONEY BEE COLONY FITNESS	*p.149*
10:00 - 10:20	**49) Marina Basualdo - Argentina** NATURAL POLLEN DIETS AND THEIR EFFECT ON FAT BODY WEIGHT AND PROTEIN CONCENTRATION	*p.149*
10:20 - 10:40	**50) Vasyl Gaidar – Ukraine** CARPATHIAN BEES OF UKRAINE	*p.150*

SYMPOSIUM: Biodiversity and Conservation – 11:20 to 13:00

Chair: Lionel Goncalves – Brazil

11:20 - 11:40	**51) Vera Lucia Imperatriz Fonseca – Brazil (IS)** SUSTAINABLE USE AND CONSERVATION OF NATIVE POLLINATORS IN BRAZIL	*p.150*
11:40 - 12:00	**52) María Alice Pinto - Portugal** PATTERNS OF GENETIC VARIATION OF *APIS MELLIFERA IBERIENSIS*: INSIGHTS FROM THE POPULATIONS INHABITING THE ATLANTIC SIDE OF THE IBERIAN PENINSULA	*p.151*
12:00 - 12:20	**53) María Constanza Vidal Montero - Chile** ANALYSIS OF THE GENETIC STRUCTURE OF BEES IN CHILE: IDENTIFICATION OF AFRICANIZED BEES USING MITOCHONDRIAL DNA	*p.151*
12:20 - 12:40	**54) Juan Marcos Juricich - Argentina** LOOKING FOR DRONES FREE AREAS FOR NATURAL FECUNDATION OF QUEEN BEES, VALLECITOS, LUJÁN, MENDOZA, ARGENTINA	*p.151*
12:40 - 13:00	**55) Tiago Mauricio Francoy - Brazil** JOINING LANDMARK AND OUTLINE-BASED METHODS IS MORE EFFICIENT IN DISCRIMINATING EUGLOSSA SPECIES	*p.152*

BEE HEALTH COMMISSION

FRIDAY 23 - ROOM ASIA – 9:00 to 13:00

PLENARY SESSION: Strategies to improve honeybee health

Chair: Wolfgang Ritter – Germany

09:00 - 09:20	**56) Wolfgang Ritter - Germany** UPDATE ON BEE DISEASES	*p.152*
09:20 - 10:00	**57) Jeff Pettis - United States (IS)** A RETROSPECTIVE LOOK AT FACTORS CONTRIBUTING TO COLONY LOSSES IN THE U.S. OVER FIVE YEARS	*p.153*
10:00 - 10:20	**58Ingemar Fries - Sweden (IS)** CAN WE MODEL HONEY BEE HEALTH?	*p.153*
10:20 - 10:40	**59) Robin Moritz – Germany (IS)** MODERN GENETICS AND BREEDING FOR COLONY HEALTH	*p.154*
11:20 - 11:40	**60) Tjeerd Blacquière - Netherlands** SEMI NATURAL SELECTION FOR VARROA TOLERANCE USING AN ISLAND FOR MATING	*p.154*

52 PATTERNS OF GENETIC VARIATION OF *APIS MELLIFERA IBERIENSIS:* INSIGHTS FROM THE POPULATIONS INHABITING THE ATLANTIC SIDE OF THE IBERIAN PENINSULA

María Alice Pinto - Portugal
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The Iberian honey bee, Apis mellifera iberiensis, has been one of the most intensively surveyed honey bee subspecies for genetic variation. Despite the numerous studies, the maternal composition of the populations inhabiting the Atlantic side of the Iberian Peninsula was virtually unknown until recently. Between 2009 and 2010 we sampled over 1000 colonies across continental Portugal, which were then examined using the DraI RFLP of the cox1-cox2 mitocondrial DNA marker. Our findings show (i) a high genetic diversity mostly of African origin (A lineage), as expected; (ii) a north-south cline formed by sublineage AIII which is gradually replaced by sublineage AI; (iii) haplotypic variation never reported before; (iv) a low frequency of colonies belonging to lineage M; (v) a low level of genetic pollution from C lineage (Italian and Carniola honey bees). This study provides a fuller picture of the Iberian honey bee evolutionary and contemporary history and at the same time supply baseline information that can be of further use for development of breeding and conservation programs of honey bees in Portugal.

53 ANALYSIS OF THE GENETIC STRUCTURE OF BEES IN CHILE: IDENTIFICATION OF AFRICANIZED BEES USING MITOCHONDRIAL DNA

Maria Constanza Vidal Montero - Chile
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Africanized bees are a hybrid between European honey bees and African honey bees. They are characterized by being more aggressive, abandoning hives, invading the hives of European bees, and by forming swarms. In addition to being complicated for beekeepers to handle and signifying a risk for humans, they also pose a risk to biodiversity. To date, there have been no systematic, scientific studies that investigate the presence of Africanized bees in Chile, even though they have been reported in the countries with which it shares borders. The objective of this paper, then, is to analyze the genetic structure of a sample of the Chilean honey bee population by studying polymorphism in the intergenic region COI-COII of the mitochondrial DNA (mtDNA) in order to detect Africanization. With this aim, 436 samples from four regions in the North and Center of the country were analyzed. By using PCR-RFLP in 7.5% acrylamide gel and the DraI restriction enzyme, the lineage and haplotypes of each sample were determined. Among the results obtained, the lineages C and M, and the haplotypes C1, C2, C3, M3, M7, and M17 were distinguished. These results indicate that there has been no Africanization in the maternal line of the population studied, its origin being European. The places from which the bees could have been imported include Italy, Northern France and the Caucasus region of central Europe, as these are the geographic areas that present the same haplotypes as those determined in this study. In accordance with this, in the future it will be relevant to confirm these results by amplifying the analysis to study nuclear DNA through microsatellite markers.

54 LOOKING FOR DRONES FREE AREAS FOR NATURAL FECUNDATION OF QUEEN BEES, VALLECITOS, LUJAN, MENDOZA, ARGENTINE

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