

APIMONDIA

48TH INTERNATIONAL **CHILE**
APICULTURAL CONGRESS **2023**

September 4th - 8th, 2023

Sustainable Beekeeping, from the south of the world

PROGRAM BOOK

ORGANIZED BY



HOST ASSOCIATION



www.apimondia2023.com

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Welcome to the 48th Apimondia Congress in Santiago, Chile. The local organizing team, the scientific committees, Conmark and Apimondia have worked hard to bring you a fantastic event here in Santiago. Please enjoy the talks and roundtables and catch up with old friends and make a few new ones as well. The Api Expo will have numerous vendors for you to enjoy and see the latest in equipment and innovations in beekeeping. Lastly, I hope you plan to see more of Chile, beyond Santiago. Our technical tours can give

you a taste of Chilean beekeeping but more awaits you if you have more days to explore the diverse, beautiful landscapes of Chile.

Beekeeping is more and more challenging in our changing world. Floods, fires, extreme weather, and unpredictable rainfall all combine to make beekeeping challenging. Our goal in this Congress is to focus on sustainable beekeeping. The relationship between beekeeping and the environment, can be sustainable and profitable, even as climate change is making beekeeping more challenging. Enjoy the Congress and events and may this 48th Apimondia Congress bring you new ideas, new partnerships, and new friendships.

Warm regards

Jeff Pettis

Apimondia President

A handwritten signature in blue ink that reads "Jeff Pettis". The signature is written in a cursive, flowing style.





Bienvenidos al 48° Congreso Apimondia en Santiago de Chile. El equipo organizador local, los comités científicos, Conmark y Apimondia han trabajado arduamente para traerles un evento fantástico aquí en Santiago. Disfrute de las charlas y mesas redondas y póngase al día con viejos amigos y haga algunos nuevos también. La Api Expo contará con numerosos vendedores para que disfrutes y veas lo último en equipos e innovaciones en apicultura.

Por último, espero que planees ver más de Chile, más allá de Santiago. Nuestros recorridos técnicos pueden darle una idea de la apicultura chilena, pero le esperan más si tiene más días para explorar los diversos y hermosos paisajes de Chile.

La apicultura es cada vez más desafiante en nuestro mundo cambiante. Las inundaciones, los incendios, el clima extremo y las lluvias impredecibles se combinan para hacer que la apicultura sea un desafío. Nuestro objetivo en este Congreso es centrarnos en la apicultura sostenible. La relación entre la apicultura y el medio ambiente puede ser sostenible y rentable, incluso cuando el cambio climático hace que la apicultura sea más desafiante. Disfrute del Congreso y los eventos y que este 48° Congreso de Apimondia le traiga nuevas ideas, nuevas asociaciones y nuevas amistades.

Un cordial saludo

Jeff Pettis
Presidente Apimondia

A handwritten signature in blue ink that reads "Jeff Pettis". The signature is stylized and cursive.





Dear Friends,

On behalf of the Local Organizing Committee of the 48° International Apicultural Congress, APIMONDIA CHILE 2023, it is an honor for me to greet you all and express our gratitude for sharing this challenge with us.

Our special thanks to the national and international collaborators, to the scientific community that submitted 759 abstracts for oral and poster presentations, to the exhibitors present in the APIEXPO, to the sponsors, and to all the public and private institutions for their collaboration. And warm greetings to all the beekeepers that are visiting us, to share the knowledge they have gathered from personal experiences in their different countries of origin.

Under our main concept of "Sustainable Beekeeping from the South of the World", this international forum for reflection and debate, between different actors in world beekeeping, concerning the successes, difficulties, opportunities, and challenges that beekeepers face today, in order to be sustainable tomorrow. We are witnesses of the factors that are threatening our local and global surroundings, due to climate change and the agroindustrial models of development that affect pollinators, biodiversity and the balance of our ecosystems. This is why we need to advance in generating knowledge for our activities, and to value the innovations and new technologies created for the development of beekeeping that we will discover in APIMONDIA 2023.

Our invitation is to strengthen the connections and exchanges between different categories of participants (producers, businessmen, academics, researchers and institutions, so that together we can face the task of defining territorial strategies, both globally and locally, for the sustainability of our wonderful and vital activity.

We wish you all a pleasant stay in our country, may it be full of valuable experiences of world wide beekeeping, and our local beekeeping in Chile. We invite you to enjoy our landscapes and traditions, and remember that our Chilean Beekeeping, with all its diversity, will always be ready to receive you with a warm welcome,

Misael Cuevas Bravo

**President of the Chilean Beekeeping Federation
and of the Local Organizing Committee of APIMONDIA Chile 2023.**





Estimados amigos y amigas,
En representación del Comité Organizador Local del 48° Congreso Internacional de Apicultura APIMONDIA, es un orgullo saludar y agradecer a todos quienes nos acompañan en este gran desafío, a los colaboradores nacionales e internacionales, a la comunidad científica que participó con 759 trabajos distribuidos en modalidades orales y póster, a las empresas presentes en la APIEXPO, a las empresas auspiciadoras, y a las entidades patrocinadoras públicas y privadas. Hacemos un especial reconocimiento a todos los apicultores y apicultoras que nos visitan, y comparten sus saberes y sus experiencias locales en sus distintos países de origen.

“Desde el Sur del Mundo por una Apicultura Sostenible”: esperamos que este espacio de interacción y debate entre los distintos actores de la cadena apícola mundial, abra un espacio de diálogo y reflexión en torno a los aciertos, las problemáticas, las oportunidades y desafíos que enfrenta la apicultura de hoy para hacerse sostenible en el mañana. Somos testigos de las amenazas en nuestros entornos inmediatos y globales derivados del cambio climático y de los modelos agroindustriales que afectan a los polinizadores y a la biodiversidad en los equilibrios ecosistémicos, por lo que necesitamos avanzar en la generación de conocimientos asociados a nuestra actividad, valorando las innovaciones y agregación tecnológica en el desarrollo de la apicultura que conoceremos en APIMONDIA 2023.

Nuestra invitación es a fortalecer los lazos de intercambio entre los distintos actores participantes como (productores, comercializadores, académicos, investigadores, instituciones, entre otros). Así podemos asumir en conjunto la definición de estrategias territoriales, regionales y globales, que hagan sostenible nuestra hermosa y vital actividad.

Les deseamos una grata estadía en Chile, llena de experiencias valiosas de la apicultura del mundo y de la nuestra, así también les invitamos a disfrutar de nuestras tradiciones y paisajes. El nuestro Chile Apícola siempre estará disponible para recibirlos en toda su diversidad y con su cálida acogida.

Misael Cuevas Bravo
Presidente, Red Apícola Nacional F.G. y de la
Comisión Organizadora Local, APIMONDIA Chile 2023



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Harriet Eeles - Cooperativa Mieles del Sur

Marcela Peña y Lillo - Agro-apicultura Ltda

Marcelo Henríquez - ApiQuality SpA

Misael Cuevas Bravo - Federación Red Apícola Nacional F.G. (RAN F.G.)

Enrique Mejías - Comisión Chilena de Energía Nuclear (CCHEN)

Final Expanded Commission / Comisión Ampliada

Daniela Moriametz - Dirección General de Promoción de Exportaciones (PROCHILE)

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Mario Gallardo - Servicio Agrícola y Ganadero (SAG)

Graciela Urrutia - Programa Estratégico Transforma Alimentos

Florence Pelissou - Fundación para la Innovación Agraria (FIA)

Claudio Sances - Servicio Natural de Turismo (SERNATUR)

Pamela Bravo - Instituto de Investigaciones Agropecuarias (INIA)

Christian Osorio - Instituto de Desarrollo Agropecuario (INDAP)

Mauricio Rondanelli - Universidad de Concepción (UDEC)

Christian Castro - Consultor Apícola

Max Troncoso - Servicio de Cooperación Técnica (SERCOTEC)

Roberto Villagra Mella - Ministerio de Agricultura (MINAGRI)

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Marcelo Contreras - Federación Red Apícola Nacional F.G. (RAN F.G.)

Pamela Rodríguez - Federación Red Apícola Nacional F.G. (RAN F.G.)

Wilson Rozas - Federación Red Apícola Nacional F.G. (RAN F.G.)

Camilo Ruiz - Federación Red Apícola Nacional F.G. (RAN F.G.)



SCIENTIFIC COMMITTEE / COMITÉ CIENTÍFICO

APIMONDIA SCIENTIFIC COMMISSION / COMISIÓN CIENTÍFICA DE APIMONDIA

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BEE BIOLOGY / Biología De Las Abejas	PROF. GERALDINE WRIGHT
BEEKEEPING ECONOMY / Economía Apícola	PROF. NORBERTO LUIS GARCIA
BEEKEEPING FOR RURAL DEVELOPMENT / Desarrollo Rural	MEGAN DENVER
BEE HEALTH / Salud De Las Abejas	DR. FANI HATJINA
BEEKEEPING TECHNOLOGY AND QUALITY / Tecnología y Calidad	ETIENNE BRUNEAU
POLLINATION AND BEE FLORA / Polinización y Flora Apícola	DR. LUCAS ALEJANDRO GARIBALDI
PROGRAM COORDINATOR / Coordinadora Del Programa	MARIA ALEJANDRA PALACIO

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BEEKEEPING TECHNOLOGY AND QUALITY / Tecnología y Calidad	PROF. NURI GRAS
POLLINATION AND BEE FLORA / Polinización y Flora Apícola	DR. VICTOR HUGO MONZON



GENERAL INFORMATION

REGISTRATION

Registration Desks will be in service as below;

03 September	11:00 - 19:00
04, 05, 06, 07, 08 September	08:30 - 18:30

NAME BADGE

All participants and accompanying persons are kindly requested to wear their name badges throughout the Congress to be able to participate in the scientific sessions, exhibition and all other scheduled activities.

EXHIBITION

Exhibition will take place in the Trade Pavilion of Espacio Riesco on below dates:

04 September	13:00 - 19:00
05, 06, 07, 08 September	09:00 - 19:00

TOURS

Participants registered in advance for the technical and touristic tours has to receive their vouchers from the Tour Desk located in the Registration Area.

Vouchers for Technical Tours can be received until 15:00 on September 7th. For touristic tours vouchers must be picked one day before the departure date until 13:00.

INTERNET SERVICE

Free Wi-Fi service is available in the Congress Venue.

LANGUAGE

Congress Language is English. Simultaneous translation in English, Spanish and Portuguese will be available in the Opening & Closing Ceremonies of the Congress.

Simultaneous translation in English, Spanish and Portuguese will be available in Hall A which is the main scientific session room where all the Major Symposiums will be organized.

CERTIFICATE

Participants will be able receive their Certificate of Attendance in digital format via congress web page after the congress.

LIABILITY AND INSURANCE

Registration fees do not include the insurance of participants against personal accidents, sickness and cancellations by any party, theft, loss or damage to personal possessions. Participants are advised to take out adequate personal insurance to cover travel, accommodation, cancellation and personal effects. Congress organisers cannot accept liability for personal injuries sustained, or for loss or damage of property belonging to meeting participants, either during or as a result of the meeting.



INFORMACIÓN GENERAL

ACREDITACIÓN

Los mostradores de registro estarán en servicio como se indica a continuación;

03 de Septiembre	11:00 - 19:00
04, 05, 06, 07, 08 de Septiembre	08:30 - 18:30

TARJETAS DE IDENTIFICACIÓN

Se ruega a todos los participantes y acompañantes que lleven sus distintivos durante todo el Congreso para poder participar en las sesiones científicas, exposición y demás actividades programadas.

EXHIBICIÓN COMERCIAL

El Pabellón Ferial de Espacio Riesco se utilizará como Centro de la Exhibición Comercial

4 de Septiembre, 2023	13:00 - 19:00
05, 06, 07, 08 de Septiembre	09:00 - 19:00

TOURS

Los participantes registrados con anticipación para los recorridos técnicos y turísticos deben recibir sus cupones en el Mostrador de Tours ubicado en el Área de Registro.

Los vales para Visitas Técnicas se pueden recibir hasta las 15:00 horas del 7 de septiembre. Para los tours turísticos, los bonos deben recogerse un día antes de la fecha de salida hasta las 13:00.

SERVICIO DE INTERNET

El servicio de Wi-Fi está disponible en la Sede del Congreso.

LANGUAGE

El idioma del Congreso es el inglés. Habrá traducción simultánea en inglés, español y portugués en las Ceremonias de Apertura y Clausura del Congreso.

Habrá traducción simultánea en inglés, español y portugués en la Sala A, que es la principal sala de sesiones científicas donde se organizarán todos los Simposios principales.

CERTIFICADO

Los participantes podrán recibir su Certificado de Asistencia en formato digital a través de la página web del congreso después del congreso.

RESPONSABILIDAD CIVIL Y SEGUROS

Los valores de inscripción no incluyen el seguro de los participantes contra accidentes personales, enfermedad y cancelaciones por cualquiera de las partes, robo, pérdida o daños a las pertenencias personales. Se aconseja a los participantes que contraten un seguro personal adecuado que cubra el viaje, el alojamiento, la cancelación y los efectos personales. Los organizadores del Congreso no se hacen responsables de los daños personales sufridos, ni de la pérdida o deterioro de bienes pertenecientes a los participantes en la reunión, ya sea durante la misma o como consecuencia de ella.



PROGRAM AT A GLANCE

SEPTEMBER 4th, 2023

Opening Ceremony	16:00 - 17:30	Grand Riesco Hall
Exhibition Opening	13:00	Trade Pavillion
Exhibition	13:00 - 19:00	Trade Pavillion

SEPTEMBER 5th, 2023

Congress Scientific Sessions	09:00 - 18:30	Congress Center / 4 Parallel Halls
Apimondia General Assembly	15:30 - 17:30	Don Bernardo Hall (Room A)
Exhibition	09:00 - 19:00	Trade Pavillion

SEPTEMBER 6th, 2023

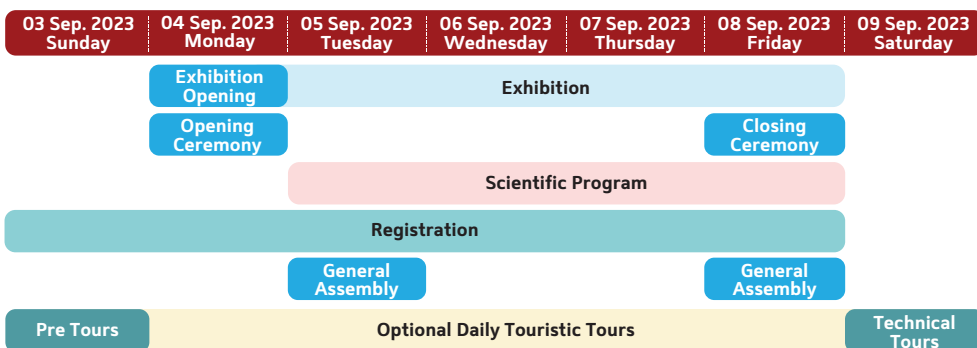
Congress Scientific Sessions	09:00 - 18:30	Congress Center / 4 Parallel Halls
Exhibition	09:00 - 19:00	Trade Pavillion

SEPTEMBER 7th, 2023

Congress Scientific Sessions	09:00 - 18:30	Congress Center / 4 Parallel Halls
Exhibition	09:00 - 19:00	Trade Pavillion
WBA Award Ceremony	17:00 - 18:30	Trade Pavillion

SEPTEMBER 8th, 2023

Congress Scientific Sessions	09:00 - 17:00	Congress Center / 4 Parallel Halls
Exhibition	09:00 - 17:00	Trade Pavillion
Closing Ceremony	17:00	Grand Riesco Hall



RESUMEN DEL PROGRAMA

SEPTIEMBRE 4, 2023

Apertura Ceremonia	16:00 - 17:30	Sala de Grand Riesco
Exhibición Apertura	13:00	El Pabellón Ferial
Exhibición	13:00 - 19:00	El Pabellón Ferial

SEPTIEMBRE 5, 2023

Congreso Sesiones Científicas	09:00 - 18:30	Centro de Congresos / 4 Salas
Asamblea General de Apimondía	15:30 - 17:30	Sala de Don Bernardo (Sala de A)
Exhibición	09:00 - 19:00	El Pabellón Ferial

SEPTIEMBRE 6, 2023

Congreso Sesiones Científicas	09:00 - 18:30	Centro de Congresos / 4 Salas
Exhibición	09:00 - 19:00	El Pabellón Ferial

SEPTIEMBRE 7, 2023

Congreso Sesiones Científicas	09:00 - 18:30	Centro de Congresos / 4 Salas
Exhibición	09:00 - 19:00	El Pabellón Ferial
WBA Ceremonia de Premiación	17:00 - 18:30	El Pabellón Ferial

SEPTIEMBRE 8, 2023

Congreso Sesiones Científicas	09:00 - 17:00	Centro de Congresos / 4 Salas
Exhibición	09:00 - 17:00	El Pabellón Ferial
Clausura Ceremonia	17:00	Sala de Grand Riesco





APIMONDIA

SCANDINAVIA

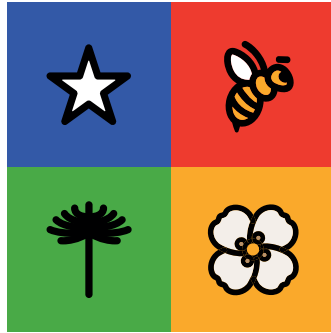
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COPENHAGEN





APIMONDIA
CHILE 2023

SCIENTIFIC PROGRAM

Programa Científico



DETAIL OF DISTRIBUTION OF ACTIVITIES BY SCIENTIFIC COMMITTEE

Commission	Activity	Room	Day	Schedule
MAIN SYMPOSIUM	Sustainability & Beekeeping	A	05-sept	09:00-12:15
	Land Use, Biodiversity and Beekeeping	A	06-sept	09:00-11:00
	Added Value on Honeybee Products	A	07-sept	09:00-11:00
Apitherapy	Clinical trails in human and veterinary medicine	B	05-sept	09:00-11:00
	Pharmacology, animal studies, pharmaceutical technology	C	06-sept	09:00-11:00
	Pharmacology - Animal Studies	A	07-sept	14:15-16:15
	Special and Specific Honeys of the World	C	05-sept	12:15-13:15
Bee Health	Bee immunity - Resistance to Varroa	B	05-sept	14:15-16:15
	Bee Immunity and Virus	B	06-sept	09:00-11:00
	Bee and exposure to pesticides I	B	06-sept	14:15-16:15
	Bee and exposure to pesticides II	B	07-sept	09:00-11:00
	Fighting Varroa challenges I	A	07-sept	16:30-18:30
	Fighting Varroa challenges II	C	07-sept	14:15-16:15
	Monitoring honeybee losses	B	08-sept	09:00-11:00
	Pests and Pathogens I	C	08-sept	11:15-13:15
	Pests and Pathogens II	C	08-sept	14:15-16:15
	Biosecurity measures- Harmonized activities between APIMONDIA, FAO and WOAHA	A	05-sept	12:15-13:15
	Bees as bioindicators/ agrochemicals and the collaboration with the farmers	D	06-sept	16:30-18:30
Bee Biology	Nutrition & Microbiome	C	05-sept	14:15-16:15
	Behaviour & Breeding	B	06-sept	16:30-18:30
	Genetics & Diversity	C	07-sept	09:00-11:00
	Are pollen substitutes the best answer to nutritional deficits caused by climate change?	D	05-sept	16:30-18:30
Beekeeping Economy	Symposium Beekeeping Economy	B	05-sept	11:15-13:15

Commission	Activity	Room	Day	Schedule
Pollination & Bee Flora	Local and landscape management of floral resource	C	06-sept	14:15-16:15
	Pollination by Apis and non-Apis bees	C	07-sept	16:30-18:30
	Pollen and plant diversity use by bees	C	08-sept	09:00-11:00
Rural Development	Queen Rearing - Low Cost, Low Input, High Impact	D	05-sept	12:15-13:15
	Diverse Approaches - Common Goals Rural Development Projects in Africa	B	05-sept	16:30-18:30
	Expanding Non-Traditional Roles in Rural Beekeeping	C	06-sept	16:30-18:30
	Economic Resources for Rural Development Projects/Compelling Rural Development Projects	B	07-sept	16:30-18:30
	Successful Strategies for Rural Development Programs	D	07-sept	14:15-16:15
Technology & Quality	Breeding and Good Practices	C	05-sept	16:30-18:30
	Adulteration	A	06-sept	14:15-16:15
	Bee products characterization	A	08-sept	09:00-11:00
Economy & Technology	Bee products quality	A	08-sept	11:15-13:15
America+Oceania Economy+ Technology & Quality	Implications of the EU coordinated action "From the Hives" (Honey 2020-2022)	A	06-sept	16:30-18:30
	Honey Adulteration in the Domestic Markets of the Americas	D	07-sept	09:00-11:00
America+Oceania	SHB Control Strategies in Different Parts of the World	B	08-sept	11:15-13:15
Americas	Management of hives with different productive objectives in America	D	06-sept	14:15-16:15
Africa	African Beekeeping Development	D	05-sept	09:00-12:15
Asia	Asia Bee Network: Forging Global Sustainable Beekeeping Collaboration	C	05-sept	09:00-12:15
Europe	Current challenges of European beekeeping	D	06-sept	09:00-12:15
Chile	Research and Public Policy	D	08-sept	09:00-11:00
	Fraud, Safety, Adding Value	D	08-sept	11:15-13:15
	Valuation and Role of Trade Organizations & Human Capital Training	D	08-sept	14:15-16:15

DETALLE DISTRIBUCIÓN DE ACTIVIDADES POR COMISIÓN CIENTÍFICA

Comisión	Actividad	Sala	Día	Horario
SIMPOSIO MAGISTRAL	Sostenibilidad y Apicultura	A	05-sept	09:00-12:15
	Uso del Suelo, Biodiversidad y Abejas	A	06-sept	09:00-11:00
	Valor Agregado en Productos Melíferos	A	07-sept	09:00-11:00
Apiterapia	Ensayos clínicos en medicina humana y veterinaria	B	05-sept	09:00-11:00
	Farmacología, Estudios Animales y Tecnología Farmacéutica	C	06-sept	09:00-11:00
	Farmacología - Estudios Animales	A	07-sept	14:15-16:15
	Mieles especiales y específicas del mundo	C	05-sept	12:15-13:15
Salud de Las Abejas	Inmunidad de abejas - resistencia a varroa	B	05-sept	14:15-16:15
	Inmunidad de abejas y Virus	B	06-sept	09:00-11:00
	Abejas y exposición a los pesticidas I	B	06-sept	14:15-16:15
	Abejas y exposición a los pesticidas II	B	07-sept	09:00-11:00
	Desafíos de la lucha contra la varroa I	A	07-sept	16:30-18:30
	Desafíos de la lucha contra la varroa II	C	07-sept	14:15-16:15
	Monitoreo de la pérdida de abejas melíferas	B	08-sept	09:00-11:00
	Plagas y patógenos I	C	08-sept	11:15-13:15
	Plagas y patógenos II	C	08-sept	14:15-16:15
	Medidas de bioseguridad- Actividades armonizadas entre APIMONDIA, FAO y WOAHA	A	05-sept	12:15-13:15
Abejas como bioindicadores de calidad medioambiental/ El uso de agroquímicos y la colaboración con los agricultores	D	06-sept	16:30-18:30	
Biología de Abejas	Nutrición y Microbioma	C	05-sept	14:15-16:15
	Comportamiento y Cría	B	06-sept	16:30-18:30
	Genética y Diversidad	C	07-sept	09:00-11:00
	Son los sustitutos del polen la mejor respuesta a los déficits nutricionales causados por el cambio climático?	D	05-sept	16:30-18:30
Economía Apícola	Simposio - Economía Apícola	B	05-sept	11:15-13:15

Comisión	Actividad	Sala	Día	Schedule
Polinización y Flora Apícola	Gestión local y Paisajística de recurso floral	C	06-sept	14:15-16:15
	Polinización por abejas Apis y no Apis	C	07-sept	16:30-18:30
	Diversidad vegetal y de polen usado por las abejas	C	08-sept	09:00-11:00
Desarrollo Rural	Cría de Reinas - Bajo Costo, Bajo Insumo, Alto Impacto	D	05-sept	12:15-13:15
	Diversos enfoques - Objetivos comunes/ Proyectos de desarrollo rural en África	B	05-sept	16:30-18:30
	Expandiendo roles no tradicionales en la apicultura rural	C	06-sept	16:30-18:30
	Recursos económicos para proyectos de desarrollo rural Proyectos de desarrollo rural convincentes	B	07-sept	16:30-18:30
	Estrategias Exitosas Para Programas de Desarrollo Rural	D	07-sept	14:15-16:15
Tecnología y Calidad	Mejoramiento y Buenas Prácticas	C	05-sept	16:30-18:30
	Adulteración	A	06-sept	14:15-16:15
	Caracterización de Productos Apícolas	A	08-sept	09:00-11:00
Tecnología y Economía	Calidad de Productos Apícolas	A	08-sept	11:15-13:15
America+Oceania Economy+ Technology & Quality	Implicaciones de la acción coordinada de la UE "Desde las Colmenas" (Miel 2020-2022)	A	06-sept	16:30-18:30
	Adulteración de la miel en los mercados internos de las Américas	D	07-sept	09:00-11:00
America+Oceania	Estrategias de Control De PEC En Diferentes Partes Del Mundo	B	08-sept	11:15-13:15
Américas	Manejo de colmenas con diferentes objetivos productivos en América	D	06-sept	14:15-16:15
África	Apicultura para el Desarrollo de África	D	05-sept	09:00-12:15
Asia	Red De Abejas De Asia: Forjando Una Colaboración Mundial Sostenible En Apicultura	C	05-sept	09:00-12:15
Europe	Retos Actuales de la Apicultura Europea	D	06-sept	09:00-12:15
Chile	Investigación y Políticas Públicas	D	08-sept	09:00-11:00
	Fraude, Inocuidad, Agregación de Valor	D	08-sept	11:15-13:15
	Formación de Capital Humano	D	08-sept	14:15-16:15

SEPTEMBER 5TH, 2023 – Tuesday

TIME SLOT	HALL A	HALL B	HALL C	HALL D
09:00 - 10:00	Main Symposium	Symposium Apitherapy	Round Table Asia	Round Table Africa
10:00 - 11:00				
		BREAK		
11:15 - 12:15	Main Symposium	Symposium Economy	Round Table Asia	Round Table Africa
12:15 - 13:15	Round Table Bee Health		Round Table Apitherapy	Symposium Rural Dev.
		LUNCH BREAK		
14:15 - 15:15		Symposium Bee Health	Symposium Bee Biology	
15:15 - 16:15				
		BREAK		
16:30 - 17:30		Symposium Rural Dev.	Symposium Technology	Round Table Bee Biology
17:30 - 18:30				



Apitherapy
Apiterapia



Bee Biology
Biología de Abejas



Bee Health
Salud de Las Abejas



Beekeeping Economy
Economía Apícola



Beekeeping For Rural Development
Desarrollo Rural



Beekeeping Technology & Quality
Tecnología y Calidad



Pollination & Bee Flora
Polinización y Flora Apícola



SEPTEMBER 5TH, 2023 – Tuesday

HALL – A

MAIN SYMPOSIUM / SIMPOSIO MAGISTRAL

09:00 – 12:15

Sustainability & Beekeeping / Sostenibilidad y Apicultura

Moderators: Etienne Bruneau & Fani Hatjina & Raquel De Sousa

09:00 - 09:15

Introduction / Introducción
Etienne Bruneau

09:15 - 09:30

Economic models for sustainable beekeeping around the world
Modelos económicos para una apicultura sostenible en todo el mundo
Norberto Garcia

09:30 - 10:00

Epigenetics of worker sterility in social bees
Epigenética de la esterilidad obrera en abejas sociales
Klaus Hartfelder

10:00 - 10:15

Understanding and monitoring social resilience in honeybee colonies
Comprensión y seguimiento de la resiliencia social en colonias de abejas melíferas
Zeynep Ulgezen

10:15 - 10:30

Stress drives premature self-removal behavior that leads to death in young honey bee (*Apis mellifera*) workers
El estrés impulsa un comportamiento de auto-retirada prematura que conduce a la muerte en las abejas obreras jóvenes *Apis mellifera*
Jordan Twombly Ellis

10:30 - 11:00

Selective breeding for mite resistance and sustainable management of varroa with organic acids
Cría selectiva para resistencia a ácaros, y/o manejo sostenible de varroa con ácidos orgánicos
Randy Oliver

11:00 - 11:15

BREAK

11:15 - 11:30

Strategies for a successful implementation of honey bee breeding programs. A look back on 30 years of hands-on-experience
Estrategias para una implementación exitosa de programas de cría de abejas melíferas. Una mirada retrospectiva a 30 años de experiencia práctica
Ingrid Schmaranzer

11:30 - 11:45

Using an updated Regional Climate Model in combination with beekeeping and pollination data to provide future climate assessments in Mediterranean basin countries
Uso de un modelo climático regional actualizado en combinación con datos de apicultura y polinización para proporcionar futuras evaluaciones climáticas en los países de la cuenca del Mediterráneo
Fani Hatjina

11:45 - 12:00

Questions & Answers / Preguntas y Respuestas

12:00 – 12:15

BREAK / DESCANSO

HALL – A

12:15 – 13:15

ROUND TABLE / BEE HEALTH / MESA REDONDA / SALUD DE LAS ABEJAS
Biosecurity measures - Harmonised activities between APIMONDIA, FAO and WOAH

Medidas de bioseguridad- Actividades armonizadas entre APIMONDIA, FAO y WOAH

Moderators: Giovanni Formato & Fani Hatjina

13:15 – 14:15

LUNCH BREAK / PAUSA PARA ALMORZAR

SEPTEMBER 5TH, 2023 – Tuesday

HALL – B

SYMPOSIUM / APITHERAPY / SIMPOSIO APITERAPIA

09:00 – 11:00

Clinical Trials in Human and Veterinary Medicine

Ensayos clínicos en medicina humana y veterinaria

Moderators: Cristina Mateescu, Maria Alejandra Lopez Pazos

09:00 – 09:15

Use of Propolis Alginate for the Treatment of Difficult Healing Wounds

Uso de Alginato de Propoleos Para el Tratamiento de Heridas de Dificil Cicatrización
Nicolas Cardozo

09:15 – 09:30

Poplar propolis improves insulin homeostasis and pancreatic cell function in pre-diabete mellitus obese volunteers; a crossover randomized controlled trial

El propóleo de álamo mejora la homeostasis de la insulina y la función de las células pancreáticas en voluntarios obesos con prediabetes mellitus; un ensayo controlado aleatorio cruzado
Nicolas Cardinault

09:30 – 09:45

Apitherapy as an integrated approach to the support of autistic children

La apiterapia como enfoque integrado de apoyo a los niños autistas

Natalia Sorokova

09:45 – 10:00

Steps of healing of Qatada (*Acacia hamulosa*) honey on open method of pilonidal sinus

Pasos de la curación de la miel de Qatada (*Acacia hamulosa*) en el método abierto del seno pilonidal

Ahmed Hegazi

10:00 – 10:15

Propolis as a useful aid for reducing the severity of COVID-19 disease

El propóleo como ayuda útil para reducir la gravedad de la enfermedad COVID-19

Andresa Aparecida Berretta

10:15 – 10:30

Antinociceptive and Anti-inflammatory Effects of Bee Venom Injections on Osteoarthritis in Canines: A Pilot Test

Efectos antinociceptivos y antiinflamatorios de las inyecciones de veneno de abeja en la osteoartritis en caninos: una prueba piloto

Jorge Alberto Corredor Díaz

10:30 – 10:45

Complementary Medicine in the approach to complex patients in Clinical Veterinary Medicine and Comparative Medicine: Traditional Chinese Medicine & Apitherapy integrated into the Clinic.

Clinical cases - animals; introduction to the subject - people
Medicina Complementaria en el abordaje de pacientes complejos en Medicina Veterinaria Clínica y Medicina Comparada: Medicina Tradicional China & Apiterapia integrada en la Clínica. Casos clínicos - animales; introducción al tema - personas

María Alejandra López Pazos

10:45 – 11:00

Novel therapy with Colombia red propolis to treat feline leukemia.

A remission of symptoms

Nueva terapia con propóleo rojo de Colombia para el tratamiento de la leucemia felina. Una remisión de los síntomas.

Jorge Alberto Corredor Díaz

11:00 – 11:15

BREAK / DESCANSO



SEPTEMBER 5TH, 2023 – Tuesday

**HALL – B
11:15 – 13:15**

SYMPOSIUM - BEEKEEPING ECONOMY / SIMPOSO - ECONOMÍA APÍCOLA
Moderator: Norberto Garcia

11:15 – 11:30

Decentralized Honey: Building Trust and Transparency in the Beekeeping Industry
Miel descentralizada: Fomento de la confianza y la transparencia en el sector apícola
Milan Wiercx van Rhijn

11:30 – 11:45

Insight into honey purchase and consumption processes in an emerging market
Información sobre los procesos de compra y consumo de miel en un mercado emergente
Rodrigo Romo

11:45 – 12:00

A trade-off of honey bee breeding and beekeeping financial success
Un intercambio entre la cría de abejas melíferas y el éxito económico de la apicultura
Borce Pavlovegazi

12:00 – 12:15

Atlas of Beekeeping in Brazil: a platform that gathers information about beekeeping to support decision-making
Atlas de la Apicultura en Brasil: una plataforma que reúne información sobre la apicultura para apoyar la toma de decisiones
Kátia Paula Aleixo

12:15 – 12:30

Value Added Bee Product Training Program – The Fiji Experience
Programa de formación sobre productos apícolas de valor agregado - La experiencia de Fiji
Karen Mills

12:30 – 12:45

Cooperative of professional beekeepers / Cooperativa de apicultores profesionales
Ramon Rodriguez Monje

12:45 – 13:00

Design and development of an effective communication strategy for the promotion of honey consumption in Chile
Diseño de una estrategia comunicacional efectiva para la promoción del consumo de miel en Chile
Antonio Sandoval

13:00 – 13:15

13:15 – 14:15

LUNCH BREAK / PAUSA PARA ALMORZAR



SEPTEMBER 5TH, 2023 – Tuesday

HALL – C

ROUND TABLE - ASIA / MESA REDONDA - ASIA

09:00 – 12:15

Theme: Asia Bee Network: Forging Global Sustainable Beekeeping Collaboration
Red De Abejas De Asia: Forjando Una Colaboración Mundial Sostenible En Apicultura
Moderators: Orawan Duangphakdee & Zahira Nedjraoui

1. Sustainable Beekeeping / Apicultura Sostenible

1.1 The Benefits of Sustainable Honey Production in Asia
Los beneficios de la producción sostenible de miel en Asia
Dr. Orawan Duangphakdee and Preecha Rodim

1.2 Update of Stingless bee Honey Standard / Actualización del estándar de miel de abejas sin aguijón
Dr. Norhasnida Zawawi

1.3 Sustainable Beekeeping in Arid Zones / Apicultura Sustentable en Zonas Áridas
Dr. James Arruda Salome

2. Introduction of Forging Collaboration / Introducción de la colaboración de forja

2.1 Apimondia Asia Commission / Comisión Apimondia Asia

2.2 International Stingless bee Honey Standard Committee / Comité Internacional de Estándares de Miel de Abejas sin Aguijón

3. Future Work Forces / Futuras Fuerzas Laborales

3.1 Asian Honey Quality / Calidad de la miel asiática

3.2 Resilience Community and Ecosystems / Resiliencia comunitaria y ecosistemas

3.3 Biodiversity Livestocks, Bee flora and Pollen Atlas / Biodiversidad ganadería, flora apícola y polen Atlas

4. Questions & Answers / Preguntas y Respuestas

HALL – C

ROUND TABLE - APITHERAPY / MESA REDONDA - APITERAPIA

12:15 – 13:15

Special and Specific Honeys of the World / Mielles especiales y específicas del mundo
Moderator: Cristina Mateescu

12:15 – 12:30

The Potential of Texan Honey to Treat and Prevent Nosocomial Infections
El potencial de la miel de Texas para tratar y prevenir infecciones nosocomiales
Ferhat Ozturk

12:30 – 12:45

The Search for Medicinal Properties for Human Health of Spotted Lantern Fly Honey
Búsqueda de propiedades medicinales para la salud humana de la miel de la mosca de la linterna moteada
Petrusia Kotlar

12:45 – 13:00

Synergistic Effect of Melipona Honey with Conventional Antibiotics against E. coli ATCC 25922
Efecto Sinérgico de la miel de Melipona con antibióticos convencionales contra E. coli ATCC 25922.
Elizabeth Ortiz-Vázquez

13:00 – 13:15

Susceptibility of microorganisms from clinical and reference isolates to Mexican propolis from native stingless bees
Susceptibilidad de microorganismos de aislamientos clínicos y de referencia al propóleo mexicano de abejas nativas sin aguijón
Betsabé Rodríguez

13:15 – 14:15

LUNCH BREAK / PAUSA PARA ALMORZAR



SEPTEMBER 5TH, 2023 – Tuesday

HALL – D

ROUND TABLE - AFRICA / MESA REDONDA - APITERAPIA

09:00 – 12:15

African Beekeeping Development / Apicultura para el Desarrollo de África

Moderator: Harum Baiya

1. Introductions (Guests and country level) / Introducción
2. Regional Commission update / Actualización de la Comisión Regional
 - a. New Members / Nuevos miembros
 - b. ARC report / Informe CRA
 - c. DR Congo Presentation / Presentación RD Congo
3. Live Demonstration – Hive making by Abdul / Demostración en vivo: fabricación de colmenas por Abdul
4. Importation and Trading of Fake Honey / Importación y Comercialización de Miel Falsa
5. Importation of Banned Bee-killing Pesticides / Importación de pesticidas prohibidos que matan abejas
6. ARAE - TSARA Research / Investigación ARAE - TSARA
7. Upcoming Regional Events: / Próximos eventos regionales:
 - a. Tanzania / Tanzania
 - b. Burkina Faso / Burkina Faso
 - c. Rwanda / Ruanda
8. Questions & Answers / Preguntas y Respuestas
9. Way forward / Camino a seguir

HALL – D

**SYMPOSIUM / BEEKEEPING FOR RURAL DEVELOPMENT
SIMPOSIO DE DESARROLLO RURAL**

12:15 – 13:15

Queen Rearing - Low Cost, Low Input, High Impact

Cría de Reinas - Bajo Costo, Bajo Insumo, Alto Impacto

Moderators: Megan Denver & Jorik Phillips

- 12:15 – 12:30 How I raise quality queen bees in a changing world
Cómo criar abejas reinas de calidad en un mundo cambiante
Tucka Saville
- 12:30 – 12:45 Expanding economic opportunities through low input colony propagation
Expansión de las oportunidades económicas mediante la propagación de
colonias de bajos insumos
Jorik Phillips
- 12:45 – 13:00 Raising Resilient Bees in rural pristine watershed located in Oregon,
USA using closed breeding program and naturally reared queens without
the use of grafting in commercial apiary family-sized operation
Cría de abejas resistentes en una cuenca prístina rural situada en Oregón (EE.UU.)
utilizando un programa de cría cerrado y reinas criadas de forma natural sin
utilizar injertos en un colmenar comercial de tamaño familiar.
Eric Lewis McEwen
- 13:00 – 13:15 The One Bee Revolution / La revolución de una abeja
Sam Comfort
- 13:15 – 14:15 **LUNCH BREAK / PAUSA PARA ALMORZAR**

SEPTEMBER 5TH, 2023 – Tuesday

HALL – B

14:15 – 16:15

SYMPOSIUM - BEE HEALTH / SIMPOSIO - SALUD DE LAS ABEJAS

Bee Immunity - Resistance to Varroa / Inmunidad de abejas - resistencia a varroa

Moderator: Ernesto Guzman-Novoa

14:15 – 14:30

The honey bees immune memory
La memoria inmune de las abejas melíferas

Rodrigo Aarón Burciaga

14:30 – 14:45

A new frontier for visualising the impact of stressors in bees: proteins pictured by mass spectrometry

Una nueva frontera para visualizar el impacto de los factores de estrés en las abejas: proteínas fotografiadas por espectrometría de masas

Philippe Bulet

14:45 – 15:00

Progress on the bee breeding program for low Varroa growth (LVG) in Canada

Avances en el programa de cría de abejas con bajo crecimiento de Varroa (LVG) en Canadá

Ernesto Guzman-Novoa

15:00 – 15:15

Biometric parameters of newborn drones (*Apis mellifera* L.) and factors that affect them in hives of Mayabeque, Cuba

Parámetros biométricos de zánganos recién nacidos (*Apis mellifera* L.) y factores que los afectan en colmenas de Mayabeque, Cuba

Jorge Demedio Lorenzo

15:15 – 15:30

Fertility costs of cryptic viral infections in honey bee queens

Costos en fertilidad por infecciones víricas crípticas en las reinas de las abejas melíferas

Abigail Chapman

15:30 – 15:45

A severe global alert on honey bee health: a recent unidentified devastating health phenomenon of honey bees of Iran

Grave alerta mundial sobre la salud de las abejas melíferas: un reciente fenómeno sanitario devastador no identificado de las abejas melíferas de Irán

Pegah Valizadeh

15:45 – 16:00

Always Arid: Lessons from Atacama Desert Beekeeping in the Face of a Changing Climate

Siempre áridos: Lecciones de la Apicultura del Desierto de Atacama frente a un clima cambiante

Mónica Meza Aliaga

16:00 – 16:15

High incidence of viruses affecting migratory bees of *Apis mellifera* species in Southern Brazil

Alta incidencia de virus afectan la migración de las abejas de la especie *Apis mellifera* del sur de Brasil

Aroni Sattler

16:15 – 16:30

BREAK / DESCANSO



SEPTEMBER 5TH, 2023 – Tuesday

HALL – B

SYMPOSIUM - BEEKEEPING FOR RURAL DEVELOPMENT SIMPOSIO DESARROLLO RURAL

16:30 – 18:30

Diverse Approaches - Common Goals/Rural Development Projects in Africa
Diversos enfoques - Objetivos comunes/Proyectos de desarrollo rural en África
Moderators: Megan Denver & Jorik Phillips

Diverse Approaches - Common Goals / Diversos enfoques - Objetivos comunes

16:30 – 16:45

Rural beekeeping in a collective / Apicultura rural en un colectivo
Mark Lilly

16:45 – 17:00

Beekeeping and Rural Livelihoods / Apicultura y medios de vida rurales
Portia Morudi

17:00 – 17:15

A course concept for a beekeeping method in the rural area of Lower Saxony / Germany with low material input - basis for sustainable beekeeping with students, also with disabilities, enabling inclusive learning
Un concepto de curso para un método de apicultura en la zona rural de Baja Sajonia / Alemania con bajos insumos materiales - base para una apicultura sostenible con estudiantes, también con discapacidades, que permita un aprendizaje inclusivo
Ines Oldenburg

17:15 – 17:30

Breaking the Cycle of Poverty by Beekeeping with Indigenous Bees – Field Studies from India
Rompiendo el ciclo de la pobreza mediante la apicultura con abejas autóctonas
Estudios de campo en India
Dhanshree Chavan

Rural Development Projects in Africa / Proyectos de desarrollo rural en África

17:30 – 17:45

Utilizing Indigenous Beekeeping Knowledge /
Robert Nil Mutisi

17:45 – 18:00

Socio-economic analysis of the impact of beekeeping in the rural livelihood of the Kaudwane community
Análisis socioeconómico del impacto de la apicultura en el sustento rural de la comunidad Kaudwane
Yari Roggia

18:00 – 18:15

Analysis of Production and Marketing of Beehive Crops in Adamawa State, Nigeria
Análisis de la Producción y Comercialización de Cultivos de Colmena en el Estado de Adamawa, Nigeria
Muhammad R. Ja'afar-Furo

18:15 – 18:30

Multiplication of Honeybee (*Apis mellifera adansonii* L.) Colonies Using Three Different Low-cost Model Nucleus Hives Design in Two Main Vegetation Zones of Nigeria
Multiplicación de colonias de abejas melíferas (*Apis mellifera adansonii* L.) utilizando tres modelos diferentes de bajo costo de colmenas núcleo en dos zonas principales de vegetación de Nigeria
Akande Alabi Ayoade

SEPTEMBER 5TH, 2023 – Tuesday

HALL – C

14:15 – 16:15

SYMPOSIUM - BEE BIOLOGY / SIMPOSIO BIOLÓGICA DE ABEJAS

Nutrition & Microbiome / Nutrición y Microbioma

Moderators: Gennaro Di Prisco & Raquel De Sousa

14:15 – 14:30

Alimentary base of *Melipona beecheii* larvae in two urban meliponaries of Cuba
Base alimentaria de larvas de *Melipona beecheii* en dos meliponarios urbanos de Cuba
Jorge Demedio Lorenzo

14:30 – 14:45

Apparent digestibility of lipids and fatty acids by *Apis mellifera* (L.):
a comparative study of different bee pollen types collected in Argentina
Digestibilidad aparente de lípidos y ácidos grasos de *Apis mellifera* (L.):
un estudio comparativo de diferentes tipos de polen de abeja recolectados
en Argentina
Matías Francisco Ledesma González

14:45 – 15:00

Determining the age at which worker honey bees interact with and consume
pollen substitute patties
Determinación de la edad a la que las abejas obreras interactúan con
las empanadas de sucedáneo de polen y las consumen
Kaylin Kleckner

15:00 – 15:15

Effects of Different Nutritional Sources on Brood Rearing Capability of Nurse Bees
Efectos de diferentes fuentes nutricionales en la capacidad de cría de las abejas
nodrizas
Clara Elisa Castaños

15:15 – 15:30

Nutritional enrichment of pollen for honey bee diet through the internal and
external processes by honey bees
Enriquecimiento nutricional del polen para la dieta de las abejas melíferas a
través de sus procesos internos y externos
Sampat Ghosh

15:30 – 15:45

Behavioural studies into the brain-gut axis of honey bees: How gut microbes
can affect complex social behaviour of hives
Estudios conductuales sobre el eje cerebro-intestino de las abejas melíferas:
cómo pueden afectar los microbios intestinales al complejo comportamiento
social de las colmenas
Graham J Thompson

15:45 – 16:00

Molecular identification of stingless bee *Tetragonisca angustula*
gut microbiota
Identificación molecular de bacterias aisladas del intestino de la abeja sin aguijón
Tetragonisca angustula
Fernanda Giovana Martins de Oliveira

16:00 – 16:15

A semi-field method for measuring the impact of diet on brood production in
intact honeybee nucleus colonies
Un método de semicampo para medir el impacto de la dieta en la producción de
cría en colonias de núcleos de abejas melíferas intactas
Rui Fernando Da Silva Gonçalves

16:15 – 16:30

BREAK / DESCANSO



SEPTEMBER 5TH, 2023 – Tuesday

HALL – C

SYMPOSIUM / BEEKEEPING TECHNOLOGY & QUALITY

SIMPOSIO TECNOLOGÍA Y CALIDAD

16:30 – 18:30

Breeding and Good Practices / Mejoramiento y Buenas Prácticas

Moderator: Nuri Grass

16:30 – 16:45

Searching Africanization in Chile with a novel technique beside a certification proposal for traceability system

Buscando la africanización en Chile con una técnica novedosa junto a una propuesta de certificación del sistema de trazabilidad

Andrés Vargas Fernández

16:45 – 17:00

Artificial Intelligence to count and discriminate honey bee activity at the hive entrance

Inteligencia artificial para contar y discriminar la actividad de las abejas melíferas a la entrada de la colmena

Raquel Martín Hernández

17:00 – 17:15

The methodology and monitoring of honey bee food supplements and substitutes

Metodología y Monitoreo de los suplementos nutricionales y sustitutos alimentarios de las abejas melíferas

Róbert Chlebo

17:15 – 17:30

Development and implementation of a system for the identification and location of the queen bee inside honey hives

Desarrollo e implementación de un sistema de identificación y localización de la abeja reina dentro de las colmenas de miel

Karim Belhaki Rivas

17:30 – 17:45

An IT-based Group-enabled Incubator for Queen Bee Rearing with Immediate Hatching Notification

Incubadora para la cría de abejas reinas con notificación inmediata de la eclosión, basada en la tecnología de la información.

Oliver Theel

17:45 – 18:00

Multimodal winter mortality predictor / Predictor multimodal de mortalidad invernal

Nico Coallier

18:00 – 18:15

Early Prediction of Beehive Survivability in Winter Using Multi-modal Sensor Data

Predicción temprana de la supervivencia de las colmenas en invierno mediante datos de sensores multimodales

Yi Zhu

18:15 – 18:30

Comparison of different sizes of mating boxes in Langstroth and Dadant hives in mating and performance of produced queens

Comparación de diferentes tamaños de cajas de apareamiento en colmenas Langstroth y Dadant en el apareamiento y el rendimiento de las reinas producidas

Fani Hatjina

SEPTEMBER 5TH, 2023 – Tuesday

HALL – D

16:30 – 18:30

ROUND TABLE / BEE BIOLOGY / MESA REDONDA BIOLOGÍA DE LAS ABEJAS
Are Pollen Substitutes The Best Answer to Nutritional Deficits
Caused by Climate Change?

Son los sustitutos del polen la mejor respuesta a los déficits nutricionales
causados por el cambio climático?

Moderators: Gennaro Di Prisco & Raquel De Sousa

Speakers

Randy Oliver, founder of the ScientificBeekeeping.com and California Almond
Pollination beekeeper

Rui Goncalves, Portuguese beekeeper working in the UK and honey bee
nutrition scientist at the University of Oxford

16:30 - 17:30

Introduction to the topic & invited speakers opinion and hands on experience
Introducción al tema, opinión y experiencia práctica de los oradores invitados

17:30 – 18:30

Engaging with the audience, brainstorming and Q&As
Diálogo de Interacción con la audiencia





SEPTEMBER 6TH, 2023 – Wednesday


TIME SLOT	HALL A	HALL B	HALL C	HALL D
09:00 - 10:00	Main Symposium	Symposium Bee Health	Symposium Apitherapy	Round Table Europe
10:00 - 11:00				
		BREAK		
11:15 - 12:15	POSTER SESSION Apitherapy / Bee Biology, Beekeeping Economy Beekeeping for Rural Development / Pollination and Bee Flora			Round Table Europe
12:15 - 13:15				
		LUNCH BREAK		
14:15 - 15:15	Symposium Economy & Tech.	Symposium Bee Health	Symposium Pollination	Round Table Americas
15:15 - 16:15				
		BREAK		
16:30 - 17:30	Round Table Americas & Oceania Economy & Tech.	Symposium Bee Biology	Symposium Rural Dev.	Round Table Bee Health
17:30 - 18:30				

 Apitherapy
Apiterapia


 Beekeeping For Rural Development
Desarrollo Rural


 Bee Biology
Biología de Abejas

 Beekeeping Technology & Quality
Tecnología y Calidad

 Bee Health
Salud de Las Abejas

 Pollination & Bee Flora
Polinización y Flora Apícola

 Beekeeping Economy
Economía Apícola

 Economy & Technology
Economía y Tecnología



SEPTEMBER 6TH, 2023 – Wednesday

HALL – A

MAIN SYMPOSIUM / SIMPOSIO MAGISTRAL

09:00 – 11:00

Land Use, Biodiversity and Beekeeping / Uso del Suelo, Biodiversidad y Abejas
Moderators: Megan Denver & Lucas Garibaldi

09:00 – 09:05

Introduction / Introducción al simposio

09:05 – 09:35

Beekeeping native bees to promote biodiversity and more sustainable land use
Apicultura de abejas nativas para promover la biodiversidad y un uso más sostenible de la tierra.

Breno Freitas

09:35 – 09:50

Bees, pollination and multifunctional landscapes use
Abejas, polinización y paisajes multifuncionales

Lucas A. Garibaldi

09:50 – 10:20

The role of beekeeping on Forest conservation and rural livelihoods security in Africa

El rol de la apicultura en la conservación de los bosques y la seguridad de los medios de vida rurales en África

Portia Morudi

10:20 – 10:35

Socio-environmental impact of the production and commercialization of honey in the buffer zone of the Gorongosa National Park

Impacto socioambiental de la producción y comercialización de miel en la zona de amortiguamiento del Parque Nacional Gorongosa

Marcos Bera Chova

10:35 – 10:50

Sustainable beekeeping and permaculture, a perfect balance
Apicultura sostenible y permacultura, un equilibrio perfecto

Mark Lilly

10:50 – 11:00

Questions & Answers / Preguntas y Respuestas

11:00 – 11:15

BREAK / DESCANSO



SEPTEMBER 6TH, 2023 – Wednesday

HALL – B

SYMPOSIUM - BEE HEALTH / SIMPOSIO SALUD DE LAS ABEJAS

09:00 – 11:00

Bee Immunity and Viruses / Inmunidad de abejas y Virus

Moderator: Victoria Soroker

09:00 – 09:15

Trans-generational immune priming against American Foulbrood does not affect honeybee colony performance

La inmunización transgeneracional contra la Loque americana no afecta al rendimiento de las colonias de abejas melíferas

Matti Leponiemi

09:15 – 09:30

Nutritional supplements improves the strength and productivity of *Apis mellifera* colonies located in a *Eucalyptus grandis* plantation

Suplementos nutricionales mejoran la fortaleza y productividad de colonias de abejas *Apis mellifera* localizadas en una plantación de *Eucalyptus grandis*

Matilde Alarcón

09:30 – 09:45

Unraveling honey bee's virome from varroa survivor and susceptible colonies in Uruguay

Desentrañando el viroma de la abeja melífera en colonias susceptibles y sobrevivientes de varroa en Uruguay

Daniela Arredondo

09:45 – 10:00

Use of statistical models to predict the interspecific transmission of pathogenic microorganisms in wild bees in Italy

Uso de modelos estadísticos para predecir la transmisión interespecífica de microorganismos patógenos en abejas silvestres en Italia

Giovanni Cilia

10:00 – 10:15

Modeling floral diversity suggests a dilution effect for RNA viruses in transmission between honeybees and bumblebees

El modelamiento de la diversidad floral sugiere un efecto de dilución para los virus RNA en la transmisión entre abejas melíferas y abejorros

Alex Burnham

10:15 – 10:30

Effects of a diet containing 7 probiotic strains (Honeybeeotic™) on commercial honey bee colonies in terms of haemolymph cytology and phenoloxidase activity

Efectos de una dieta que contiene 7 cepas probióticas (Honeybeeotic™) en colonias comerciales de abejas melíferas en términos de la citología de la hemolinfa y actividad fenoloxidasas

Livio Galosi

10:30 – 10:45

Disease ecology of a wild population of honey bees (*Apis mellifera*) in south Texas

Ecología de las enfermedades de una población silvestre de abejas melíferas (*Apis mellifera*) en el sur de Texas

Myra Dickey

10:45 – 11:00

Ontogeny of individual immunity and virus infection in workers and drones of honey bee (*Apis mellifera*)

Ontogenia de la inmunidad individual y la infección vírica en obreras y zánganos de la abeja melífera (*Apis mellifera*)

Victoria Soroker

11:00 – 11:15

BREAK / DESCANSO



SEPTEMBER 6TH, 2023 – Wednesday

HALL – C

SYMPOSIUM - APITHERAPY / SIMPOSIO - APITERAPIA

09:00 – 11:00

Pharmacology, Animal Studies, Pharmaceutical Technology
Farmacología, Estudios Animales y Tecnología Farmaceutica

Moderator: Badiaa Lyoussi

09:00 – 09:15

Potential use of propolis as a multitarget therapeutic product: In Vitro Evaluation of its immunomodulatory, antibacterial, and anticancer properties
Uso potencial del propóleo como producto terapéutico multiobjetivo: *In Vitro* Evaluación de sus propiedades inmunomoduladoras, antibacterianas y anticancerígena
Soumaya Touzani

09:15 – 09:30

Unravelling the beehive air volatiles profile as analysed via solid-phase micro- extraction (SPME) and chemometrics and its role in combating Asthma
Descifrando el perfil de los volátiles del aire de la colmena analizados mediante microextracción en fase sólida (SPME) y quimiometría y su papel en la lucha contra el asma.
Hesham El-seedi

09:30 – 09:45

Effect of *Melipona beecheii* pot-pollen proteins on "*Pseudomonas aeruginosa*" biofilm formation
Efecto de las proteínas del polen de *Melipona beecheii* sobre la formación de biofilm de *Pseudomonas aeruginosa*.
Elizabeth Ortiz-Vázquez

09:45 – 10:00

Inhibitory effects of aqueous ethanol extracts of poplar-type propolis from China on the formation of advanced glycation end products
Efectos inhibitorios de los extractos acuosos etanólicos de propóleo tipo álamo de China sobre la formación de productos finales de glicación avanzada
Tongtong Ye

10:00 – 10:15

Lactic acid bacteria isolated from *Apis mellifera* and their ability to convert trans-10-hydroxy-2-decenoic acid in royal jelly to 10-hydroxydecanoic acid
Bacterias lácticas aisladas de *Apis mellifera* y su capacidad para convertir el ácido trans-10-hidroxi-2-decenoico de la jalea real en ácido 10-hidroxidecanoico
Hayate Itatani

10:15 – 10:30

Protective Effect of Honey and Propolis against Gentamicin- Induced Oxidative Stress and Hepatorenal Damages
Efecto protector de la miel y del propóleo contra el estrés oxidativo y los daños hepatorenales inducidos por la gentamicina
Badiaa Lyoussi

10:30 – 10:45

Systematically Investigating the Protective Role of Standardized Indian Bee Propolis against Inflammatory and Tau-phosphorylation Pathway of Alzheimer's disease
Investigación sistemática de la función protectora del propóleo de abeja estandarizado de la India contra la vía inflamatoria y la Tau fosforilación en la enfermedad de Alzheimer
Sandeep Sankaran

10:45 – 11:00

Transdermal patches loaded with polymeric nanoparticles of propolis as a wound healing enhancer in diabetics
Parches transdérmicos cargados con nanopartículas poliméricas de propóleo como potenciador de la cicatrización de heridas en diabéticos
Betsabé Rodríguez

11:00 – 11:15

BREAK / DESCANSO



SEPTEMBER 6TH, 2023 – Wednesday

HALL – D **ROUND TABLE / EUROPE / MESA REDONDA EUROPEA**
09:00 – 12:15 **Current Challenges of European Beekeeping**
Retos Actuales de la Apicultura Europea
Moderator: Robert Chlebo

Meeting point for representatives of European beekeeping sector visiting Apimondia to discuss main threats and challenges of this continent.

Short overview of on-going trans-border beekeeping and scientific projects will be given. Delegates of main beekeepers' federations and associations in Europe are invited to present their view within moderated discussion, including economy issues, honey market, invasive pests and diseases, contaminants, climate and land use changes.

Proposals for further action to improve European beekeeping will be formulated.

Foyer – Level 0

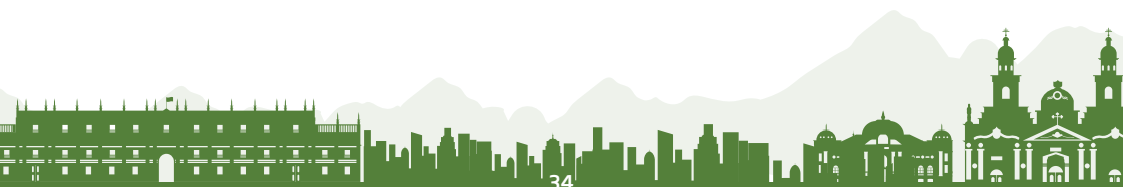
POSTER SESSION **Sesión de carteles**

11:15 – 13:15

Apitherapy / Apiterapia
Bee Biology / Biología de Abejas
Beekeeping Economy / Economía Apícola
Beekeeping for Rural Development / Desarrollo Rural
Pollination and Bee Flora / Polinización y Flora Apícola

13:15 – 14:15

LUNCH BREAK / PAUSA PARA ALMORZAR



SEPTEMBER 6TH, 2023 – Wednesday

HALL – A

SYMPOSIUM / BEEKEEPING TECHNOLOGY & ECONOMY SIMPOSIO TECNOLOGÍA Y ECONOMÍA

14:15 – 16:15

Adulteration / Adulteración

Moderators: Norberto Garcia & Etienne Bruneau

14:15 – 14:30

A fast, sensitive, and inexpensive test to detect fraudulent honey using mass spectrometry

Una prueba rápida, sensible y barata para detectar miel fraudulenta mediante espectrometría de masas

Leonard Foster

14:30 – 14:45

Honey authenticity review and method update

Revisión y actualización de los métodos sobre autenticidad de la miel

Christof Kunert

14:45 – 15:00

Application of NMR Honey-Profilng method for authenticity control of honey

Método de Perfilado de la miel por Aplicación de NMR para el control de autenticidad de la miel

Léa Heintz

15:00 – 15:15

Testing methods for honey authentication – limitations and approaches for harmonization

Métodos de prueba para la autenticación de la miel: limitaciones y enfoques para la armonización

Klaus Beckmann

15:15 – 15:30

Application of non-targeted LC-HRMS in routine analysis

Aplicación del LC-HRMS no dirigido en análisis rutinarios

Jule Hansen

15:30 – 15:45

Application of Fluorescence Spectroscopy for the Detection of Adulterated Honey in the UK

Aplicación de la espectroscopia de fluorescencia a la detección de miel adulterada en el Reino Unido

Alex Rozhin

15:45 – 16:00

The global community of beekeepers overcomes a depressed honey market by restoring authenticity, fair prices and remuneration for producers

La comunidad mundial de apicultores supera un mercado de la miel deprimido restableciendo la autenticidad, los precios justos y la remuneración para los productores

Chris Hiatt

16:00 – 16:15

Key 2023 Issues About Honey Authentication

Problemas claves de 2023 sobre la autenticidad de las mieles

Federico Berron A.

16:15 – 16:30

BREAK / DESCANSO



SEPTEMBER 6TH, 2023 – Wednesday

HALL – A

**ROUND TABLE / ECONOMY / BEEKEEPING TECHNOLOGY & QUALITY
OCEANIA & AMERICAS**

16:30 – 18:30

**Implications of the EU Coordinated Action "From the Hives"
(Honey 2020-2022)**

**Mesa Redonda: Implicaciones de la acción coordinada de la UE
"Desde las Colmenas" (Miel 2020-2022)**

Moderator: Etienne Bruneau & Norberto Garcia

16:30 – 17:00

An official overview by specialists of the EU Commission. *By Teleconference*
Resumen oficial por teleconferencia de Especialistas de la Comisión de la UE

17:00 – 17:10

Analytical perspective by Bruker by
Perspectiva analítica de Bruker por
Lea Heintz

17:10 – 17:20

Analytical perspective by Intertek Lab by
Perspectiva analítica de Intertek Lab por
Klaus Beckmann

17:20 – 17:30

Analytical perspective by FoodQS Lab by
Perspectiva analítica de FoodQS Lab de
Bernd Kämpf

17:30 – 17:40

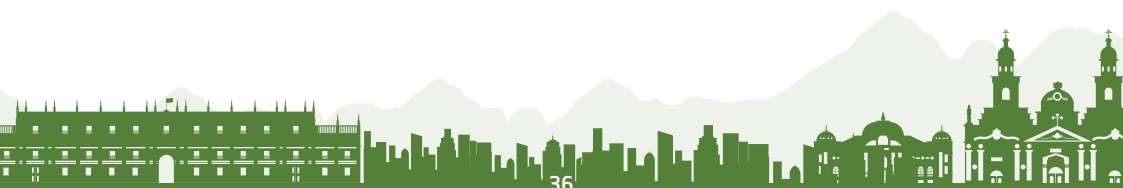
Analytical perspective by QSI Lab by
Perspectiva analítica de QSI Lab por
Martin Linkogel

17:40 – 17:50

Analytical perspective by Eurofins Lab by
Perspectiva analítica de Eurofins Lab por
Christof Kunert.

17:50 – 18:30

Questions & Answers
Preguntas y Respuestas



SEPTEMBER 6TH, 2023 – Wednesday

HALL – B

SYMPOSIUM - BEE HEALTH / SIMPOSIO - SALUD DE LAS ABEJAS

14:15 – 16:15

Bees and Exposure to Pesticides I / Abejas y exposición a los pesticidas I

Moderator: Fani Hatjina

14:15 – 14:30

Bee-mediated monitoring of pesticides, pathogens, and emerging threats
Control de pesticidas, patógenos y amenazas emergentes a través de las abejas
M. Marta Guarna

14:30 – 14:45

The application of the comet assay to assess the genotoxicity of insecticides in honey bees
Una nueva frontera para visualizar el impacto de los factores de estrés en las abejas: proteínas fotografiadas por espectrometría de masas
Samina Qamer

14:45 – 15:00

Engaging farmers and pesticide applicators in pollinator stewardship
Comprometiendo a agricultores y aplicadores de plaguicidas en la administración de polinizadores
Ana Heck

15:00 – 15:15

Transcriptomic analysis of the honey bee (*Apis mellifera*) queen brain reveals that gene expression is affected by pesticide exposure during development
El análisis transcriptómico del cerebro de la reina de la abeja melífera (*Apis mellifera*) revela que la expresión génica se ve afectada por la exposición a pesticidas durante el desarrollo
Juliana Rangel

15:15 – 15:30

The blueberries and the bees: assessing honey bee health stressors using proteomics
Los arándanos y las abejas: evaluación de los factores de estrés para la salud de las abejas melíferas mediante proteómica
Rhonda Thygesen

15:30 – 15:45

Biomolecular and behavioural responses of the European honey bee (*Apis mellifera*) to sublethal perfluorooctane sulfonate exposure concentrations
Respuestas biomoleculares y conductuales de la abeja melífera europea *Apis mellifera* a concentraciones subletales de exposición al sulfonato de perfluorooctan
Carolyn Anne Sonter

15:45 – 16:00

Apis mellifera colonies exposure to imidacloprid impairs larval cell structures
Exposición de colonias de *Apis mellifera* al imidacloprid deteriora las estructuras celulares de las larvas
Maria Claudia Colla Ruvolo-Takasusuki

16:00 – 16:15

Chronic exposure to sulfoxaflo and thiamethoxam reduces sperm viability in Western honey bee drones
La exposición crónica al sulfoxaflo y al tiametoxam reduce la viabilidad del esperma en los zánganos de las abejas melíferas occidentales
Orlando Yanez

16:15 – 16:30

BREAK / DESCANSO



SEPTEMBER 6TH, 2023 – Wednesday

HALL – B

16:30 – 18:30

SYMPOSIUM / BEE BIOLOGY / SIMPOSIO BIOLÓGICA DE ABEJAS

Behaviour & Breeding / Comportamiento y Cría

Moderators: Gennaro Di Prisco & Raquel De Sousa

16:30 – 16:45

Will our queens perform?

Serán productivas nuestras reinas de abejas melíferas?

M. Marta Guarna

16:45 – 17:00

Honey bee nuptials: mating control methods and their efficiency

Nupcialidad de las abejas melíferas: métodos de control del apareamiento y su eficacia

Janez Prešern

17:00 – 17:15

Study of the reproductive performance of drones and queens bees of *Apis mellifera intermissa* in north of Algeria

Estudio del rendimiento reproductivo de los zánganos y las reinas de abejas *Apis mellifera intermissa* en el norte

Latrech Hamidou

17:15 – 17:30

Status of Embryo cryopreservation: Studies with the honey bees

Estado de la crioconservación de embriones: Estudios con las abejas melíferas

Arun Rajamohan

17:30 – 17:45

Use of four modified diluents as alternative diluents for the refrigeration of semen from africanized honeybee (*Apis mellifera*) drones

Uso de cuatro diluyentes modificados como diluyentes alternativos para la refrigeración de semen de zánganos de abejas africanizadas (*Apis mellifera*)

Katia Peres Gramacho

17:45 – 18:00

Antennal and behavioural responses of honeybees, *Apis mellifera*, to avocado flower volatiles

Respuestas antenales y conductuales de abejas de miel, *Apis mellifera*, a volátiles de flor de aguacate

Mario Alberto Marsiglia Lans

18:00 – 18:15

Effect of essential oils on associative learning of honeybees

Efecto de aceites esenciales en el aprendizaje asociativo de abejas melíferas

Guillermo Bragunde

18:15 – 18:30

Validation of Calcein Violet as a marker of (*Apis mellifera*) semen viability in flow cytometry: preliminary results

Validación de calceína violeta como marcador de viabilidad del semen de *Apis mellifera* en citometría de flujo: resultados preliminares

Sophie Egyptien



SEPTEMBER 6TH, 2023 – Wednesday

HALL – C

SYMPOSIUM / POLLINATION & BEE FLORA

SIMPOSIO POLINIZACIÓN Y FLORA APÍCOLA

14:15 – 16:15

Local and Landscape Management of Floral Resource

Gestión local y Paisajística de recurso floral

Moderator: Lucas A. Garibaldi

14:15 – 14:30

Assessing the importance of natural areas on wild pollinators and honey bees in fruit crops in the central Mediterranean zone of Chile

Evaluación de la importancia de las áreas naturales para los polinizadores silvestres y abejas melíferas en cultivos frutales de la zona Mediterránea de Chile central.

Fernanda Montero Silva

14:30 – 14:45

What are the frequently interacting species in plant-pollinator networks?

¿Cuáles son las especies que interactúan con más frecuencia en las redes planta-polinizador?

Ehsan Rahimi

14:45 – 15:00

Biodiversity conservation and fruit production by native bees: estimation of floral constancy as an approximation to efficient and sustainable pollination

Conservación de la biodiversidad y producción frutícola por abejas nativas: estimación de la constancia floral como aproximación a una polinización eficiente y sostenible

Sharon Rodriguez

15:00 – 15:15

Management of floral resources for development of beekeeping in India

Manejo de los recursos florales para el desarrollo de la apicultura en la India

Lakshmi Rao Kavuri

15:15 – 15:30

Bees under cover

Abejas bajo cubierta

Carolyn Anne Sonter

15:30 – 15:45

The EU Pollinator Hub: Collective approach to understanding pollinator trends and threats and providing data analytical service to society

El polinizador de la UE: Enfoque colectivo para comprender las tendencias y amenazas de los polinizadores y prestar un servicio de análisis de datos a la sociedad

Noa Simon Delso

15:45 – 16:00

Preserving and increasing biodiversity using beekeeping in commercial & private settings

Preservar y aumentar la biodiversidad mediante la apicultura en entornos comerciales y privados

Paula Carnell

16:00 – 16:15

Climate change will provoke range drifting and may threaten some Amazonian bee species in the next 40 years, according to IPCC6

El cambio climático provocará cambios en el rango de distribución y puede amenazar a algunas especies de abejas amazónicas en los próximos 40 años, según el IPCC6

Vera Lucia Imperatriz-Fonseca

16:15 – 16:30

BREAK / DESCANSO



SEPTEMBER 6TH, 2023 – Wednesday

HALL – C

SYMPOSIUM - RURAL DEVELOPMENT / SIMPOSIO DES ARROLLO RURAL

16:30 – 18:30

Expanding Non-Traditional Roles in Rural Beekeeping

Expandiendo roles no tradicionales en la apicultura rural

Moderators: Cathy Benham, Kerri Vitek

- 16:30 – 16:45 Some Tried and Tested Ways to Promote Beekeeping among Rural Youth, especially Women – Field Experiences from India
Métodos e intentos evaluados para promover la apicultura entre los jóvenes rurales, especialmente mujeres - Experiencias de campo en India
Dhanshree Narayanrao Chavan
- 16:45 – 17:00 A women led-sustainable project based on meliponiculture: Sweet conservation in the Ecuadorian lowland Chocó forest
Un proyecto sostenible liderado por mujeres basado en la meliponicultura: Dulce conservación en la selva baja ecuatoriana del Chocó
Adriana Argoti
- 17:00 – 17:15 Women beekeeping during the war in Ukraine
Mujeres apicultoras durante la guerra en Ucrania
Leonora Adamchuk
- 17:15 – 17:30 Indigenous youth beekeeping in protected natural areas
Apicultura de jóvenes indígenas en áreas naturales protegidas
Juan Richard Barja Ñaupari
- 17:30 – 17:45 Re-Indigenizing Apiculture Through a Shared World-View of Interconnectedness
Re-indigenización de la apicultura a través de una cosmovisión compartida de interconexión
Melanie Kirby
- 17:45 – 18:00 Young beekeepers club: opportunity for a new beekeeping
Club de jóvenes apicultores: oportunidad para una nueva apicultura
Pablo Antonio Eduardo Maessen Bolla
- 18:00 – 18:15 Capacity building for beekeeping combining virtuality with Farmer Field Schools
Desarrollo de Capacidades en Apicultura Combinando Virtualidad con Escuelas de Campo para Agricultores
Luis Santiago Rivas
- 18:15 – 18:30 Nature based beekeeping in a commercial and educational setting in rural south west England, UK
Apicultura basada en la naturaleza en un entorno comercial y educativo en el suroeste rural de Inglaterra, Reino Unido
Paula Carnell

SEPTEMBER 6TH, 2023 – Wednesday

HALL – D

14:15 – 16:15

ROUND TABLE - AMERICAS / MESA REDONDA - AMÉRICA

Management of Hives With Different Productive Objectives in America
Manejo de colmenas con diferentes objetivos productivos en América

Moderator: Lucas Martinez

14:15 – 14:35

The Sustainable Apiary – The Palmer Method

El Colmenar Sostenible – El Método Palmer

Michael Palmer – Vermont – USA

14:35 – 14:55

Production beekeeping in Mexico

Producción apícola en México

Arnulfo Ordoñez Maldonado – Miel Norteña – México

14:55 – 15:15

Organic honey production in subtropical climate

Producción de miel orgánica en clima subtropical

Daniel Codutti – Bee Producers Cooperative – (Chaco) – Argentina

15:15 – 15:35

Management of hives for pollination and honey production in Chile

Manejo de colmenas para polinización y producción de miel en Chile

Gustavo Espinosa – National Beekeeping Network of Chile

15:35 – 15:55

Technological trail for honey production

Ruta tecnológica para la producción de miel

**Joaquín Moja – National Institute of Agricultural Technology – PROAPI
(Buenos Aires) Argentina**

15:55 – 16:15

Questions and answers / Preguntas y Respuestas

16:15 – 16:30

BREAK / DESCANSO

HALL – D

16:30 – 18:30

ROUND TABLE - BEE HEALTH / MESA REDONDA - SALUD DE LAS ABEJAS

Bees as Bioindicators of the Environmental Quality /

The use of Agrochemicals and The Collaboration With The Farmers

Abejas como bioindicadores de calidad medioambiental/

El uso de agroquímicos y la colaboración con los agricultores

Moderators: Fani Hatjina & Noa Simon-Delso

16:15 – 16:30


BREAK / DESCANSO





SEPTEMBER 7TH, 2023 - Thursday


TIME SLOT	HALL A	HALL B	HALL C	HALL D
09:00 - 10:00	Main Symposium	Symposium Bee Health	Symposium Bee Biology	Round Table Americas & Oceania Economy & Tech.
10:00 - 11:00				
BREAK				
11:15 - 12:15	POSTER SESSION Bee Health & Beekeeping Technology and Quality			
12:15 - 13:15				
LUNCH BREAK				
14:15 - 15:15	Symposium Apitherapy		Symposium Bee Health	Round Table Rural Development
15:15 - 16:15				
BREAK				
16:30 - 17:30	Symposium Bee Health	Symposium Rural Dev.	Symposium Pollination	Meeting Regional Commission of the Americas
17:30 - 18:30				

 Apitherapy
Apiterapia


 Bee Biology
Biología de Abejas

 Bee Health
Salud de Las Abejas

 Beekeeping Economy
Economía Apícola

 Beekeeping For Rural Development
Desarrollo Rural

 Beekeeping Technology & Quality
Tecnología y Calidad

 Pollination & Bee Flora
Polinización y Flora Apícola



SEPTEMBER 7TH, 2023 – Thursday

HALL – A

09:00 – 11:00

MAIN SYMPOSIUM / SIMPOISIO MAGISTRAL

Added Value on Honeybee Products

Valor Agregado en Productos Melíferos

Moderators: Cristina Mateescu & Walter Fierro

09:00 – 09:15

Introduction / Introducción

Cristina Mateescu

09:15 – 09:45

Diversity of active metabolites in stingless bee nest materials, a path for rationale discoveries in apitherapy

Diversidad de metabolitos activos en materiales de nidos de abejas sin aguijón, un camino para descubrimientos racionales en apiterapia

Patricia Vit

09:45 – 10:00

Guidelines for therapeutical use of beehive air

Directrices para el uso terapéutico del aire de colmena

Stefan Stangaciu

10:00 – 10:15

Building the BEEARC: The Honeybee and The Human Heart

Construcción del BEEARC: la abeja melífera y el corazón humano

James Fearnley

10:15 – 10:35

Apitherapy within the framework of Integrative Medicine

La apiterapia en el marco de la medicina integrativa

Walter Fierro

10:35 – 10:50

Redefining medicine / Redefiniendo la medicina

James Fearnley

10:50 – 11:00

Questions & Answers / Preguntas y Respuestas

11:00 – 11:15

BREAK / DESCANSO



SEPTEMBER 7TH, 2023 – Thursday

HALL – B

09:00 – 11:00

SYMPOSIUM - BEE HEALTH / SIMPOSIO SALUD DE LAS ABEJAS

Bees and Exposure to Pesticides II / Abejas y exposición a los pesticidas II

Moderator: Noa Simon-Delso

- 09:00 – 09:15 Transportation sensitizes honey bees to insecticides
El transporte sensibiliza a las abejas a los insecticidas
Zachary Huang
- 09:15 – 09:30 Using a honey bee cell line as an approach for studying the effects of fungicides
Utilización de una línea celular de abejas melíferas para estudiar los efectos de los fungicidas
Michael Goblirsch
- 09:30 – 09:45 Interaction of bacteria with gelsemine, nectar alkaloid toxic to honey bees
Interacción de las bacterias con la gelsemina, alcaloide tóxico del nectar para las abejas melíferas
Vera Strogolova
- 09:45 – 10:00 Hazardous agricultural pesticides used in Latin America
Pesticidas agrícolas peligrosos utilizados en América Latina
Grecia Stefanía de Groot
- 10:00 – 10:15 Effects of chemical and biological alternatives for crop pest management on the behaviour of forager honeybees *Apis mellifera* under laboratory conditions
Efecto de productos químicos y biológicos para el manejo de plagas sobre el comportamiento de selección de *Apis mellifera* en condiciones de laboratorio
Sandra Milena Aragón Rodríguez
- 10:15 – 10:30 Identification of pesticide residues found in dead bees between 2020 and 2022, in the State of São Paulo, Brazil
Identificación de residuos de agrotóxicos encontrados en abejas muertas entre 2020 y 2022, en el Estado de São Paulo, Brasil
Renata Sordi Taveira
- 10:30 – 10:45 The Effects of Mancozeb Fungicide on Survival and Development of Immatures of "*Scaptotrigona bipunctata*"
Los Efectos del Fungicida Mancozeb sobre la Supervivencia y Desarrollo de larvas de *Scaptotrigona bipunctata*
Jenifer Ramos
- 10:45 – 11:00 Assessing the detoxification effect of curcumin and rosmarinic acid on colonies exposed to flupyradifurone and carbaryl in the field
Evaluación del efecto desintoxicante de la curcumina y el ácido rosmarínico en colonias expuestas en el campo a flupiradifurona y carbaril
Yongrak Kang
- 11:00 – 11:15 **BREAK / DESCANSO**

SEPTEMBER 7TH, 2023 – Thursday

HALL – C

09:00 – 11:00

SYMPOSIUM - BEE BIOLOGY / SIMPOSIO BIOLÓGICA DE ABEJAS

Genetics & Diversity / Genética y Diversidad

Moderator: Gennaro Di Prisco & Raquel De Sousa

- 09:00 – 09:15 The honey bee pangenome: A key tool for cataloguing and analyzing genetic information
El pangenoma de la abeja melífera: Una herramienta clave para catalogar y analizar la información genética
Arián Avalos
- 09:15 – 09:30 Population genetics of a locally domesticated honey bee landrace
Genética de poblaciones de una variedad local autóctona de abeja melífera domesticada
Zheguang Lin
- 09:30 – 09:45 Monitoring the circadian activity of solitary bee (*Osmia bicornis*) with RFID technology
Seguimiento de la actividad circadiana de la abeja solitaria (*Osmia bicornis*) con tecnología RFID
Aleksandra Splitt
- 09:45 – 10:00 Honey bee populations of the USA reveal restrictions in their maternal genetic diversity
Las poblaciones de abejas melíferas de EE.UU. revelan restricciones en su diversidad genética materna
Mohamed Alburaki
- 10:00 – 10:15 Africanized honeybee colonies in Nicaragua determined by forewing length and mitochondrial DNA
Colonias de abejas africanizadas en Nicaragua determinadas por la longitud de las alas anteriores y el ADN mitocondrial
Jorge Demedio Lorenzo
- 10:15 – 10:30 Brazilian bee traits database / Base de datos de rasgos de abejas brasileñas
Guaraci D. Cordeiro
- 10:30 – 10:45 Genetic characterization of two Algerian honey bees *Apis mellifera intermissa* and *sahariensis* populations by whole genome sequencing
Caracterización genética de dos poblaciones argelinas de abejas melíferas *Apis mellifera intermissa* y *sahariensis* mediante secuenciación del genoma completo
Kamila Canale Tabet
- 10:45 – 11:00 Rational management of the world's smallest bee (*Leurotrigona Muelleri*) and its impact on native forests in protected natural areas
Manejo racional de la abeja más pequeña del mundo (*Leurotrigona Muelleri*) y su impacto en los bosques nativos de áreas naturales protegidas
Juan Richard Barja Ñaupari

11:00 – 11:15

BREAK / DESCANSO

SEPTEMBER 7TH, 2023 – Thursday

HALL – D

09:00 – 11:00

ROUND TABLE - AMERICAS / MESA REDONDA AMÉRICAS

Honey Adulteration in the Domestic Markets of the Americas

Adulteración de la miel en los mercados internos de las Américas

Moderator: Norberto García – Roberto Giudicatti

09:00 – 09:20

Honey quality controls / Controles de Calidad de la Miel

Jodie Goldsworthy - Beechworth Honey Group - Australia

09:20 – 09:40

The domestic market in Canada / El Mercado Interno en Canadá

Rod Scarlett - Canadian Honey Council

09:40 – 10:00

Representative of the USA market / Representación del Mercado de USA

Eric Wenger

10:00 – 10:20

Internal situation of the Central American, Panama and Caribbean market.

Situación interna del mercado centroamericano, panameño y caribeño

Juan Eduardo Malivern Fernandez – National Association of United Beekeepers of Panama

10:20 – 10:40

The fight against food fraud / La lucha contra el fraude alimentario

Carlos Levin – Chamber of Honey Fractionators of Argentina (CAFRAM)

10:40 – 11:00

Questions and Answers. / Preguntas y Respuestas

11:00 – 11:15

BREAK / DESCANSO

Foyer – Level 0

POSTER SESSION **Sesión de carteles**

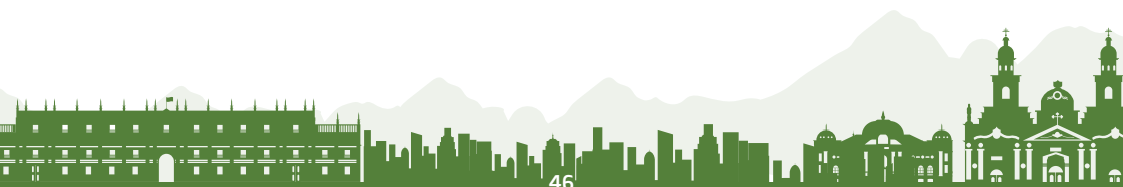
11:15 – 13:15

Bee Health / Salud de Las Abejas

Beekeeping Technology and Quality / Tecnología y Calidad

13:15 – 14:15

LUNCH BREAK / PAUSA PARA ALMORZAR



SEPTEMBER 7TH, 2023 – Thursday

HALL – A

14:15 – 16:15

SYMPOSIUM - APITHERAPY / SIMPOSIO APITERAPIA

Pharmacology – Animal Studies / Farmacología - Estudios Animales

Moderators: Kormendy Racz Janos & Andresa Aparecida Berretta

- 14:15 – 14:30 Propolis and Honey-Copper Nanoparticle Formulation: An Effective Approach for Enhancing Antibacterial Activity in Chronic Wound Healing
Formulación de propóleos y nanopartículas de miel y cobre: un enfoque eficaz para mejorar la actividad antibacteriana en la cicatrización de heridas crónicas
Limberg Jaldin-Crespo
- 14:30 – 14:45 Protective effect of bee pollen in acute kidney injury, proteinuria, and crystalluria induced by ethylene glycol ingestion in rats
Efecto protector del polen de abeja en la lesión renal aguda, la proteinuria y la cristaluria inducidas por la ingestión de etilenglicol en ratas
Badiaa Lyoussi
- 14:45 – 15:00 Efficacy and control of the microbial charge with the application of Propolis in complex wounds
Eficacia y control de la carga microbiana con la aplicación de propóleos en heridas complejas
Nicolas Cardozo
- 15:00 - 15:15 Immunomodulatory effects of three different Brazilian green propolis extract vary according to their formulation and concentration in a macrophage model
Los efectos moduladores del sistema inmunológico de tres extractos diferentes de propóleo verde brasileño varían según su formulación y concentración en un modelo de macrófagos
Luana Gonçalves Zamarrenho
- 15:15 - 15:30 Improvement of the antimicrobial activity of Mexican propolis with synthetic chalcones
Mejoramiento de la actividad antimicrobiana del propóleo mexicano con chalconas sintéticas
Betsabé Rodríguez
- 15:30 - 15:45 Development of an apitoxin-based solution for topical use in canines
Desarrollo de una solución a base de apitoxina para uso tópico en caninos
Catherine Fagundez
- 15:45 - 16:00 Structural damage of a Mexican propolis on Candida species from clinical isolates by fluorescence microscopy
Daño estructural de un propóleo mexicano sobre especies de Candida a partir de aislamientos clínicos por microscopía de fluorescencia
Y. Betsabé Rodríguez
- 16:00 – 16:15
- 16:15 - 16:30 **BREAK / DESCANSO**



SEPTEMBER 7TH, 2023 – Thursday

HALL – A

16:30 - 18:30

SYMPOSIUM - BEE HEALTH / SIMPOSIO SALUD DE LAS ABEJAS

Fighting Varroa Challenges / Desafíos de la lucha contra la varroa I

Moderator: Cameron J. Jack

- 16:30 - 16:45 *Varroa destructor* resistance to acaricides: An overview of the situation and a focus in France
Resistencia de *Varroa destructor* a los acaricidas: Una visión general de la situación y un enfoque en Francia
Benjamin Poirot
- 16:45 - 17:00 Prevalence and genetics of amitraz resistance in *Varroa destructor* from the US
Prevalencia y genética de la resistencia al amitraz en *Varroa destructor* de EE.UU.
Frank Rinkevich
- 17:00 - 17:15 Resistance to pyrethroids in *Varroa destructor*: dynamics and perspective
Resistencia a los piretroides en *Varroa destructor*: dinámica y perspectivas
Joel González-Cabrera
- 17:15 - 17:30 Reduced efficacy of amitraz for controlling *Varroa destructor* is associated with mutations in an octopamine receptor
La eficacia reducida de amitraz para controlar *Varroa destructor* se asocia con mutaciones en un receptor de octopamina
C. Sara Hernández Rodríguez
- 17:30 - 17:45 Impact of prolonged acaricidal treatments on *Varroa destructor* resistance
Efectos de los tratamientos acaricidas prolongados en la resistencia de *Varroa destructor*
Sara Moreno Martí
- 17:45 - 18:00 Pathogen dynamics in a varroa-free world: a comparison of honey bee pathogens in the Chatham Islands, New Zealand and mainland New Zealand
El modelamiento de la diversidad floral sugiere un efecto de dilución para los virus RNA en la transmisión entre abejas melíferas y abejorros
Carol Fassbinder-Orth
- 18:00 - 18:15 Validation of a method for estimating *Varroa destructor* parasitic level in *Apis mellifera* colonies
Validación de un método para estimar el nivel parasitario de *Varroa destructor* en colonias de *Apis mellifera*
Elian Tourn
- 18:15 - 18:30 Recommendations for oxalic acid application method and treatment intervals for reduction of *Varroa destructor* populations in western honey bee (*Apis mellifera*) colonies
Recomendaciones sobre el método de aplicación del ácido oxálico y los tratamientos de intervalos para la reducción de las poblaciones de *Varroa destructor* en las colonias de abejas melíferas occidentales (*Apis mellifera*)
Cameron J. Jack

SEPTEMBER 7TH, 2023 – Thursday

HALL – B

16:30 – 18:30

SYMPOSIUM - RURAL DEVELOPMENT / SIMPOSIO DESARROLLO RURAL

Economic Resources for Rural Development Project

Compelling Rural Development Projects

Recursos económicos para proyectos de desarrollo rural

Proyectos de desarrollo rural convincentes

Moderators: Kerri Vitek, Cathy Benham

Economic Resources for Rural Development Project

Recursos económicos para proyectos de desarrollo rural

16:30 – 16:45

Challenges in the implementation of Revolving Funds in beekeeping. The case of the Cámara de Apicultores Pampero (Argentina)

Desafíos en la implementación de Fondos Rotatorios en la apicultura.

El caso de la Cámara de Apicultores Pampero (Argentina)

María Emilia Estrada

16:45 – 17:00

Rural territorial development (RTD) is directly linked to the beekeeping world and its operations, needs and challenges

El desarrollo territorial rural (DTR) está directamente relacionado con el mundo apícola y sus operaciones, necesidades y desafíos

Patricio Nayan

17:00 – 17:15

Exploring the Benefits, Barriers, and Opportunities of the USAID

Farmer-to-Farmer Honey Bee Program in the Dominican Republic

Exploración de los beneficios, obstáculos y oportunidades del programa de

USAID "De agricultor a agricultor" en la República Dominicana

Amy Vu

17:15 – 17:30

Tools for strengthening productive capacities in beekeepers from the Central Pacific Region of Costa Rica

Herramientas para el fortalecimiento de las capacidades productivas en

personas apicultoras del Pacífico Central de Costa Rica

Paola Hernández-Ching

17:30 – 17:45

Compelling Rural Development Projects / Proyectos de desarrollo rural convincentes

Sustainable development of the beekeeping industry in Costa Rica

Desarrollo sostenible de la industria apícola en Costa Rica

Emanuel Antonio Miranda Cubero

17:45 – 18:00

Beekeeping as an alternative economic in Anorí, Antioquia-Colombia

Apicultura como alternativa económica en Anorí, Antioquia-Colombia

Sandra Milena Diaz Puentes

18:00 – 18:15

Practical manual of beekeeping for rural areas

Manual práctico de apicultura para campesinos

Javier Llaxacondor

18:15 – 18:30

Intervention of modern movable frames in the traditional wall hives for sustainable ecosystem of Garhwal division, Uttarakhand, India

Intervención de marcos móviles modernos en las colmenas murales

tradicionales para un ecosistema sostenible de la división Garhwal,

Uttarakhand, India

Atar Singh Kaintura

18:30 – 18:45

BREAK / DESCANSO

SEPTEMBER 7TH, 2023 – THURSDAY

HALL – C

SYMPOSIUM - BEE HEALTH / SIMPOSIO SALUD DE LAS ABEJAS

14:15 – 16:15

Fighting Varroa Challenges II / Desafíos de la lucha contra la varroa II

Moderator: Randy Oliver

14:15 – 14:30

VarroaAPPacus - A Novel Smartphone- and Machine Learning-Based Approach for Automated Detection and Counting of Dead Varroa Mites for Pest Control
VarroaAPPacus, Una nueva app basada en el aprendizaje automático para la detección y el recuento automatizados de ácaros Varroa muertos para el control de plagas

Oliver Theel

14:30 – 14:45

The impact of the varroacide VarroSan® on the cardiac activity of *Varroa destructor* mites during laboratory experiments and efficacy assessment, impact on colony development and honeybees under field trials in Greece
El impacto del varroácido VarroSan® en la actividad cardiaca de los ácaros *Varroa destructor* durante los experimentos de laboratorio y la evaluación de la eficacia, el impacto en el desarrollo de las colonias y las abejas melíferas en los ensayos de campo en Grecia.

Alexandros Papachristoforou

14:45 – 15:00

The PoshBee legacy: Summary of a 5 year EU-wide project on the effects of pesticides, pathogens and nutrition on bee health
El legado de PoshBee: Resumen de un proyecto europeo de 5 años sobre los efectos de los plaguicidas, los patógenos y la nutrición en la salud de las abejas

Joachim Rodrigues de Miranda

15:00 – 15:15

Beekeeping in Cuba: Selection, Resistance, and Diseases
Apicultura en Cuba: selección, resistencia y enfermedades

Adolfo Pérez Piñeiro

15:15 – 15:30

Using the Unhealthy Brood Odor (UBO) assay, a novel hygiene-eliciting assay, as a selection tool in bee breeding programs

Utilización de la prueba del olor insalubre de la cría (UBO), un nuevo ensayo que provoca higiene, como herramienta de selección en los programas de cría de abejas.

Samantha A. Alger

15:30 – 15:45

Summer treatment with Aluen CAP™ limited the growth of *Varroa destructor* infestations

El tratamiento de verano con Aluen CAP™ limitó el crecimiento de las infestaciones de *Varroa destructor*

Dan Aurell

15:45 – 16:00

Effect of an electrical pulse on the control of *Varroa destructor* in *Apis mellifera*

Efecto de un impulso eléctrico en el control de *Varroa destructor* en *Apis mellifera*

Javiera Gacitúa Cortés

16:00 – 16:15

16:15 – 16:30

BREAK / DESCANSO



SEPTEMBER 7TH, 2023 – Thursday

HALL – C

SYMPOSIUM - POLLINATION & BEE FLORA / SIMPOSIO POLINIZACIÓN Y FLORA APÍCOLA

16:30 – 18:30

Pollination by Apis and non-Apis bees / Polinización por abejas Apis y no Apis

Moderator: Breno Freitas

16:30 – 16:45

How self-pollinating crops can benefit from bee pollination: the case of the stingless bee *Trigona fuscipennis* and cowpea (*Vigna unguiculata*).
Cómo los cultivos autopolinizantes pueden beneficiarse de la polinización por abejas: el caso de la abeja sin aguijón *Trigona fuscipennis* y el caupí (*Vigna unguiculata*)

Breno M. Freitas

16:45 – 17:00

Potential use of stingless bees hives for blueberry crop pollination
Uso potencial de colmenas de abejas sin aguijón para la polinización del cultivo de arándanos

Patrícia Nunes-Silva

17:00 – 17:15

Consequences of the high abundance of *Bombus terrestris* on the pollination of *Vicia faba*
Consecuencias de la alta abundancia de *Bombus terrestris* sobre la polinización de *Vicia faba*

Cecilia Smith-Ramirez

17:15 – 17:30

Managed Native Bees (*Scaptotrigona aff. postica*) and Wild Pollinators Impact on Açai Palm (*Euterpe oleracea Mart.*) Yield in Eastern Brazilian Amazon
Impacto de las abejas nativas manejadas (*Scaptotrigona aff. Postica*) y polinizadores silvestres en el rendimiento de la palma de açai (*Euterpe oleracea Mart.*) en la Amazonía Oriental Brasileña

Márcia Motta Maués

17:30 – 17:45

Comparison of flower traits and visiting pollinator insects of *Prunus davidiana* and *Prunus salicina*

Comparación de rasgos florales e insectos polinizadores visitantes de *Prunus davidiana* y *Prunus salicina*

Kwanhui Lee

17:45 – 18:00

Optimization of lowbush blueberry pollination and evaluation of honeybees and bumblebees health threats and providing data analytical service to society
Optimización de la polinización de arándanos lowbush y evaluación de la salud de abejas y abejorros

Ana María Quiroga Arcila

18:00 – 18:15

Floral visitors of *Tradescantia pallida* / Visitantes florales de *Tradescantia pallida*

Isac De Macedo Da Penha

18:15 – 18:30

Supplemental pollination and soybean yield
Polinización suplementaria y rendimiento de soja

Decio Luiz Gazzoni



SEPTEMBER 7TH, 2023 – Thursday

HALL – D

**ROUND TABLE / BEEKEEPING FOR RURAL DEVELOPMENT
MESA REDONDA - DESARROLLO RURAL**

14:15 – 16:15

**Successful Strategies for Rural Development Programs
Estrategias Exitosas Para Programas de Desarrollo Rural
Moderator: Megan Denver**

Speakers

Mark Lilly, Portia Morudi, David Mukomana, Pablo Bolla

Mark Lilly is the head beekeeper and educator at Appalachian Beekeeping Collective which is an environmental program of Appalachian Headwaters who's primary focus is ecological restoration and environmental education as they work to restore native forests on former mountaintop removal coal mining sites in central Appalachia, USA. The Appalachian Beekeeping Collective program trains, supports, and provides bees and equipment at no cost to partner beekeepers in southern West Virginia and southwestern Virginia, USA.

Portia Morudi is the co-founder and sustainability director at Local Village South Africa. She has dedicated the last ten years of her life educating remote rural communities in biodiversity conservation, apiculture and helping them derive a greater value from preserving nature as opposed to exploiting it and creating markets for their produce in order to improve their livelihoods. Her passion for education and development in Africa, saw her founding a number of programmes including Thuo Nala mentoring programme for youth in rural communities in recognition that now more than ever Africa needs young people proactively contributing to innovation, environmentally and economically sustainable agricultural development.

David Mukomana is a Zimbabwean and is the founder and Managing Director of Organo Seven (Pvt) Limited, an Agro-processing company specialising in honey processing, beekeeping and honey processing equipment supplies and beekeeping training and consultancy in Zimbabwe and the SADC region. His passion in community development saw him elected Apimondia Regional Commission for Africa President in 2017, a position he was recently re-elected for a second term. David has put up regional structures that are seeing accelerated development in the apiculture sector on the African continent. He is currently working creating partnerships with development agents and institutions of higher learning to support the beekeeping sector with research work needed to unpack the intrinsic value of African honeys as well as documentation of African Beekeeping Systems.

Professor Pablo Maessen will share his insights in founding the Young Beekeepers Club in Los Corralitos, Argentina with the aim of maintaining beekeeping as a space for learning and experimentation in agro- technical schools in the province of Mendoza, Argentina.

16:15 – 16:30

BREAK / DESCANSO

HALL – D

MEETING OF THE REGIONAL COMMISSION OF THE AMERICAS

16:30 – 18:30

Moderator: Lucas Daniel Martinez



SEPTEMBER 8TH, 2023 – Friday

TIME SLOT	HALL A	HALL B	HALL C	HALL D
09:00 - 10:00	Symposium Technology	Symposium Bee Health	Symposium Pollination	Round Table Chile
10:00 - 11:00				
BREAK				
11:15 - 12:15	Symposium Technology	Round Table Americas & Oceania	Symposium Bee Health	Round Table Chile
12:15 - 13:15				
LUNCH BREAK				
14:15 - 15:15			Symposium Bee Health	Round Table Chile
15:15 - 16:15				
BREAK				
16:30 - 17:30	CLOSING CEREMONY 17:00			
17:30 - 18:30				



Apitherapy
Apiterapia



Beekeeping For Rural Development
Desarrollo Rural



Bee Biology
Biología de Abejas



Beekeeping Technology & Quality
Tecnología y Calidad



Bee Health
Salud de Las Abejas



Pollination & Bee Flora
Polinización y Flora Apícola



Beekeeping Economy
Economía Apícola



SEPTEMBER 8TH, 2023 – Friday

HALL – A

SYMPOSIUM / BEEKEEPING TECHNOLOGY & QUALITY SIMPOSIO TECNOLOGÍA Y CALIDAD

09:00 – 11:00

Bee Products Characterization / Caracterización de Productos Apícolas
Moderator: Andresa Beretta

09:00 – 09:15

Positioning Chilean honeys at the world market: study requested by FAO to the Pontificia Universidad Católica de Chile
Posicionando las mieles chilenas en el mercado mundial: estudio solicitado por FAO a la Universidad Católica de Chile.
Gloria Montenegro

09:15 – 09:30

Study of quality characteristics and functionality of drone pupae *Apis mellifera L.*
Estudio de las características de calidad y funcionalidad de las pupas de zángano (*Apis mellifera L.*)
Hyo Young Kim

09:30 – 09:45

Evaluation of the Functional Properties of the Spring Bitter Honey Collected from the Greek Island of Samothrace: Antioxidant Activity, Polyphenolic Content, Antibacterial Action and Persistence During Four Years of Storage
Evaluación de las Propiedades Funcionales de la Miel Amarga de Primavera Recolectada en la Isla Griega de Samotracia: Actividad antioxidante, contenido polifenólico, acción antibacteriana y persistencia durante cuatro años de almacenamiento
Alexandros Papachristoforou

09:45 – 10:00

Evaluation of quality attributes, biological activity and shelf-life stability of glycolic EPP-AF[®] extract as a dosage form for Brazilian green propolis
Evaluación de atributos de calidad, actividad biológica y estabilidad en vida útil del extracto glicólico EPP-AF[®] como forma de dosificación para propóleo verde brasileño
Jessica Aparecida De Lima

10:00 – 10:15

Molecular kit for the determination of botanical origin in Chilean honeys
Kit molecular para la determinación del origen botánico en mieles chilenas
Gaspar Peña Münzenmayer

10:15 – 10:30

A rare health sugar, trehalulose, discovered in stingless bee honey
Una rara y saludable azúcar, la trehalulosa, descubierta en la miel de las abejas sin aguijón
Jiali Zhang

10:30 – 10:45

A Data-driven Honey Identification Methodology for Differentiating Honey in the Marketplace
Una metodología de identificación de la miel basada en datos para diferenciarla en el mercado
James T. Wilkes

10:45 – 11:00

Honey traceability concept using blockchain technology
Concepto de trazabilidad de la miel mediante la tecnología blockchain
Lucian Avramescu

11:00 – 11:15

BREAK / DESCANSO



SEPTEMBER 8TH, 2023 – Friday

HALL – A

SYMPOSIUM / BEEKEEPING TECHNOLOGY & QUALITY SIMPOSIO TECNOLOGÍA Y CALIDAD

11:15 – 13:15

Bee Products Quality / Calidad de Productos Apícolas
Moderator: Miguel Vilas Boas

11:15 – 11:30

Increasing value-added of export honey by NMR fingerprints
Valorización de miel de exportación mediante determinación de huellas dactilares por Resonancia Magnética Nuclear
Paula Burdisso

11:30 – 11:45

“Propolis International Standard Proposed by ISO – an important regulatory framework for authenticity and quality requirements of the international propolis market”
Estándar internacional de propóleos Propuesto por ISO: un marco regulatorio importante para los requisitos de autenticidad y calidad del mercado internacional de propóleos
Andresa Aparecida Berretta

11:45 – 12:00

Study of natural constituents, contaminants, and adulterations in honey by metabolomic analysis
Estudio de constituyentes naturales, contaminantes y adulteraciones en la miel mediante análisis metabolómico
Lady Viviana Camargo Ovalle

12:00 – 12:15

Ionizing irradiation treatments for removing spores of *Paenibacillus larvae* preserving biological natural properties of Chilean honeys
Tratamientos de irradiación ionizante para eliminar las esporas de *Paenibacillus larvae* preservando las propiedades biológicas naturales de las mieles chilenas
Enrique Mejias

12:15 – 12:30

Determination of physical and chemical characteristics of bee-pollen for human consumption by near-infrared spectroscopy
Determinación de las características físico-química del polen de abeja para consumo humano por espectroscopia del infrarrojo cercano
Maria Soledad Garcia Paoloni

12:30 – 12:45

From Bee Pollen Pellets to Green Versatile Microcapsules
De los gránulos de polen de abeja a las microcápsulas verdes versátiles
Miguel Vilas-Boas

12:45 – 13:00

Development of a sustained release, high absorption and stable system based on microencapsulated green propolis standardized extract (EPP-AF[®]) – i-CAPs
Desarrollo de un sistema de liberación sostenida, alta absorción y estable a base de extracto estandarizado de propóleo verde microencapsulado (EPP-AF[®]) – i-CAPs
Andresa Aparecida Berretta

13:00 – 13:15

13:15 – 14:15

BREAK / DESCANSO



SEPTEMBER 8TH, 2023 – Friday

HALL – B

SYMPOSIUM - BEE HEALTH / SIMPOSIO SALUD DE LAS ABEJAS

09:00 – 11:00

Monitoring Honey Bee Losses / Monitoreo de la pérdida de abejas melíferas

Moderator: Giovanni Formato

09:00 – 09:15

Sentinel apiaries, epidemiological surveillance and training programs as strategies for early detection of the Small Hive Beetle in Africanized honey bees in Costa Rica
Apiarios sentinela, vigilancia epidemiológica y programas de entrenamiento capacitación como estrategias para la detección temprana del Pequeño Escarabajo de la Colmena en abejas africanizadas en Costa Rica

Rafael Calderon

09:15 – 09:30

The complex reality of the beekeeper's efforts to keep healthy honey bees. Communication and applied research on the agenda for the COLOSS B-RAP group
La compleja realidad de los esfuerzos del apicultor por mantener sanas a las abejas melíferas. Comunicación e investigación aplicada en la agenda del grupo B-RAP de COLOSS

Lotta Fabricius Kristiansen

09:30 – 09:45

Factors leading to the loss of honeybee health *Apis mellifera* L. in managed colonies from Latin America: A holistic approach

Factores que conducen a la pérdida de la salud en colmenas de abejas manejadas (*Apis mellifera* L.) en América Latina: un enfoque holístico

Marnix Doorn

09:45 – 10:00

Considerations when sampling honey bee (*Apis mellifera*) colonies for volatile organic compounds (VOCs) associated with honey bee diseases, pests and environmental contamination

Consideraciones para el muestreo de colonias de abejas melíferas (*Apis mellifera*) en busca de compuestos orgánicos volátiles (COV) asociados a enfermedades, plagas y contaminación ambiental de las abejas melíferas

Maggie C. Gill

10:00 – 10:15

Honeybee colony loss in Kenya / Pérdida de colonias de abejas en Kenia

Malena Sibaja Leyton

10:15 – 10:30

Different bottom boards in honeybee hives for the control of *Varroa destructor*

Empleo de tres pisos de diferente diseño para el control de *Varroa destructor*

Pablo Juri

10:30 – 10:45

Colony losses and renewal in the United States: Trends in losses, new queens, and new colonies from five years of the Bee Informed Partnership's national survey

Pérdidas y renovación de colonias en Estados Unidos: Tendencias en pérdidas, nuevas reinas y nuevas colonias a partir de cinco años de encuesta nacional de la Asociación de Abejas Informada

Dan Aurell

10:45 – 11:00

Results of the monitoring of the biological relationship of Africanized honeybees with varroa since 2002 in two geographic zones in Santa Cruz, Bolivia

Resultados del monitoreo de la relación biológica de abejas africanizadas con varroa desde 2002 en dos zonas geográficas de Santa Cruz, Bolivia

Nilo Padilla Osinaga

11:00 – 11:15

BREAK / DESCANSO



SEPTEMBER 8TH, 2023 – Friday

HALL – B

11:15 – 13:15

ROUND TABLE - AMERICAS & OCEANIA / MESA REDONDA - AMÉRICAS & OCEANIA
SHB Control Strategies in Different Parts of the World
Estrategias de Control De PEC En Diferentes Partes Del Mundo
Moderators: Alejandra Palacio & Ciro Invernizzi

11:15 – 11:35

SHB, The new challenge of Beekeeping?
PEC, ¿El nuevo desafío de la apicultura?

Ana Cubero – Costa Rica

11:35 – 11:55

The arrival of the small hive beetle: collaboration between beekeepers and bee health entities

La llegada del pequeño escarabajo de la colmena: colaboración entre apicultores y entidades de salud apícola

Ethel Villalobos - Director of the UH Honeybee Project - Hawaii

11:55 – 12:15

Management of the SHB in Italy / Gestión de la PEC en Italia

Giovanni Formato – IZSLT Beekeeping Laboratory (FAO Center and WOA) Italy.

12:15 – 11:35

SHB control strategies in Australian apiaries

Estrategias de control de PEC en colmenares australianos

Bruce White - Australia

12:35 – 12:55

SHB control strategy in Mexico

Estrategia de control de PEC en México

Arnulfo Ordoñez Maldonado – Miel Norteña - México

12:55 – 13:15

Questions and Answers / Preguntas y Respuestas



SEPTEMBER 8TH, 2023 – Friday

HALL – C

SYMPOSIUM / POLLINATION & BEE FLORA SIMPOSIO POLINIZACIÓN Y FLORA APÍCOLA

09:00 – 11:00

Pollen and Plant Diversity Use by Bees
Diversidad vegetal y de polen usado por las abejas
Moderator: Lucas A. Garibaldi

09:00 – 09:15

Floral resource specialization at the individual-level in a generalist population-level of a solitary bee species
Especialización de recursos florales a nivel individual en una población generalista de una especie de abeja solitaria
Diego Moure-Oliveira

09:15 – 09:30

Typical Multifloral honeys from the Pampas Austral District and Espinal Caldén District (Argentina)
Mieles multiflorales típicas del Distrito Pampeano Austral y del Distrito Espinal Caldén (Argentina)
Gisela Grandinetti

09:30 – 09:45

Microscopic investigation of honey to develop melliferous floral diversity of agroecological zone of Pakistan
Investigación microscópica de la miel para desarrollar la diversidad floral melífera de la zona agroecológica de Pakistán
Mehwish Noor

09:45 – 10:00

Entomofauna associated with botanical species native to Region de Los Rios
Entomofauna associated with botanical species native to Region de Los Rios
Miguel Angel Neira

10:00 – 10:15

Botanical sources associated with honey production by *Melipona mandacaia*
Fuentes botánicas asociadas a la producción de miel por *Melipona mandacaia*
Tania Maria Sarmiento Silva

10:15 – 10:30

INSIGNIA-EU pilot study: botanical identification of pollen through ITS2 metabarcoding
Estudio piloto INSIGNIA-EU: identificación botánica del polen a través del metabarcódigo ITS2
M. Alice Pinto

10:30 – 10:45

Native bees pollination impact on the regeneration of tropical dry broadleaf forests in Chaparrí (North coast of Peru)
Impacto de la polinización por abejas nativas en la regeneración del Bosque Seco Tropical en Chaparrí (costa norte del Perú)
Fernando Serván López

10:45 – 11:00

11:00 – 11:15

BREAK / DESCANSO



SEPTEMBER 8TH, 2023 – Friday

HALL – C

SYMPOSIUM - BEE HEALTH / SIMPOSIO SALUD DE LAS ABEJAS

Pests and Pathogens I / Plagas y patógenos I

11:15 – 13:15

Moderator: Fani Hatjina

11:15 – 11:30

Frequent parasitism of *Apis mellifera* by trypanosomatids in geographically isolated areas with restricted beekeeping movements

Parasitismo frecuente de tripanosomátidos en *Apis mellifera* en zonas geográficamente aisladas con movimientos apícolas restringidos

Raquel Martin Hernández

11:30 – 11:45

A novel antifungal formulation "Oleuropeyn-B", for the treatment of Nosemosis caused by the pathogen *Nosema ceranae* in *Apis mellifera*

"Oleuropeyn-B" una nueva formulación antifúngica, para el tratamiento de la Nosemosis causada por el patógeno *Nosema ceranae* en *Apis mellifera*

Jessica Isabel Martinez Arenas

11:45 – 12:00

Mandaguari: how our lack of understanding of native bee *Scaptotrigona postica* results on its low preservation and consequently affecting Brazilian agricultural farming

Mandaguari: cómo nuestra falta de comprensión de la abeja nativa *Scaptotrigona postica* resulta en su baja conservación, afectando como consecuencia a la agricultura brasileña

Joyce Oliveira Costa

12:00 – 12:15

Honey bee gut microbiota dynamics during starvation and recovery

Dinámica de la microbiota intestinal de las abejas melíferas durante la inanición y la recuperación

Daniel Juarez Payes

12:15 – 12:30

Potential risk factors for honey bee health in Europe

Posibles factores de riesgo para la salud de las abejas melíferas en Europa

Marc Oliver Schäfer

12:30 – 12:45

Secret sounds of bees: The use of vibroacoustics and Hidden Markov Models for non-invasive honey bee colony health monitoring

Sonidos secretos de las abejas: el uso de la vibroacústica y los modelos ocultos de Markov para el control no invasivo de la salud de las colonias de abejas melíferas

Carol Fassbinder Orth

12:45 – 13:00

Range Adjustment of Saturation Concentration of Formic acid-gel product "Mite-K" for Field Application

Ajuste de rango de concentración de saturación del producto de gel de ácido fórmico "Mite-K" para aplicación de campo

Jin Kyu Park

13:00 – 13:15

Bee pollen from native ulmo tree (*Eucryphia cordifolia*) improve of survival and reduce deformed wing virus variant A (DWV-A) load on honey bees

El polen de abeja del ulmo nativo (*Eucryphia cordifolia*) mejora la supervivencia y reduce la carga de la variante A del virus del ala deformada (DWV-A) en las abejas melíferas

Diego Eduardo Silva Vasquez

13:15 – 14:15

LUNCH BREAK / PAUSA PARA ALMORZAR



SEPTEMBER 8TH, 2023 – Friday

HALL – C

SYMPOSIUM - BEE HEALTH / SIMPOSIO SALUD DE LAS ABEJAS

Pests and Pathogens II / Plagas y Patógenos II

14:15 – 16:15

Moderator: James Ellis

14:15 – 14:30

Peek a Boo: Manipulation and Field-sampling of the Small Hive Beetle
Cucú-tras! Manipulación y muestreo de campo del pequeño escarabajo de colmena

Emanuel A. Miranda

14:30 – 14:45

Prevalence and co-occurrence of honey bee-associated pathogens in native bees and wasps

Prevalencia y co-ocurrencia de patógenos asociados a las abejas melíferas en abejas nativas y avispas

James Ellis

14:45 – 15:00

Management practice against small hive beetle as a source of microplastic contamination in honey bee colonies

Prácticas de manejo contra el pequeño escarabajo de la colmena como fuente de contaminación por microplásticos en las colonias de abejas melíferas

Ethel M. Villalobos

15:00 – 15:15

Selection of chemical insecticides to control the invaded honey bee pest, *Vespa velutina*

Selección de insecticidas químicos para controlar la plaga invasora de las abejas melíferas, *Vespa velutina*

Donguei Hong

15:15 – 15:30

The *Vespa orientalis* Linnaeus 1771 (Hymenoptera: Vespidae) issue in Chile: The urgency of taking control measures through collaboration between beekeepers, specialists, and the government

Vespa orientalis Linnaeus 1771 (Hymenoptera: Vespidae) en Chile: La urgencia de tomar medidas de control a través de la colaboración entre apicultores, especialistas y el gobierno

José Contreras

15:30 – 15:45

Assessing the efficacy of in-field and laboratory methods for the detection of *Tropilaelaps spp*

Evaluación de la eficacia de los métodos de campo y de laboratorio para la detección de *Tropilaelaps spp*

Maggie C Gill

15:45 – 16:00

Proteomics screening for honey bee health

Detección de proteómica para la salud de las abejas melíferas

Leonard J. Foster

16:00 – 16:15

Approach to the epidemiology of varroosis in Central Chile apiaries

Aproximación a la epidemiología de la Varroosis en apiarios de Chile central

Leslie Vallejos

16:15 – 16:30

BREAK / DESCANSO



SEPTEMBER 8TH, 2023 – Friday

HALL – D

ROUND TABLE - BEEKEEPING IN CHILE
MESA REDONDA APICULTURA EN LA CHILE

09:00 – 11:00

Topic: Research and Public Policy
Investigación y Políticas Públicas

11:00 – 11:15

BREAK / DESCANSO

HALL – D

ROUND TABLE / BEEKEEPING IN CHILE
MESA REDONDA APICULTURA EN LA CHILE

11:15 – 13:15

Topic: Fraud Safety, Adding Value
Fraude, Inocuidad, Agregación de Valor

13:15 – 14:15

LUNCH BREAK / PAUSA PARA ALMOZAR

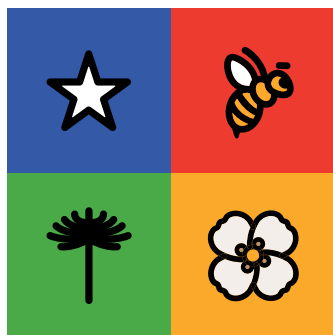
HALL – D

ROUND TABLE / BEEKEEPING IN CHILE
MESA REDONDA APICULTURA EN LA CHILE

14:15 – 16:15

Topic: Human Capital Training
Formación de Capital Humano





APIMONDIA
CHILE 2023

POSTER PRESENTATIONS

Presentación De Cartel



SEPTEMBER 6TH, 2023 - Wednesday

APITHERAPY

- PP-001 Pollen frequency of propolis samples from the insular zone of San Andres, Colombia
Guillermo Salamanca Grosso
- PP-002 Propolis in dentistry. Uses and applications. Clinic cases
Rafael Felitti
- PP-003 Protective Effect of Propolis Mixture mixed with Herbs against Helicobacter Pylori-Induced Stomach Ulcer in C57BL/6 Mouse
Jiheon Lee
- PP-004 Use of bee products in the treatment of acute and chronic wounds. Clinical cases
Stefan Stangaciu
- PP-005 Green Brazilian Propolis Oil Extract
Ildenize B S Cunha
- PP-006 Scientific-based evidence supporting the remarkable properties of honey-bee venom
Marie Agnes Courty
- PP-007 Proposal of a protocol for the use of honey dressings in pet medicine
Philippe Garcia
- PP-008 Proposal of apitherapeutic treatment protocols for some major syndromes in dogs in the context of the problem of antibiotic resistance
Proposal of apitherapeutic treatment protocols for some major syndromes in dogs in the context of the problem of antibiotic resistance
Philippe Garcia
- PP-009 Effect of honey and adulterated honey consumption on the health of wistar rats
Jose-Carlos Tapia Rivera
- PP-010 Study of the influence of the location of the bee venom extraction trap on its composition
Agustín Pérez Graña
- PP-011 Utility of honey-based dressings for the management of chronic wounds
Andrii Dinets
- PP-012 Topical Propolis in Diabetic Foot
Nicolás Cardozo
- PP-013 Comparison of the shelf life of honey shampoo with propolis as a preservative versus honey shampoo without preservative
Adela Castañeta
- PP-014 Use of propolis solutions in SARS-CoV-2 patients and contacts
Amelia Cristina Tor

SEPTEMBER 6TH, 2023 - Wednesday

APITHERAPY

- PP-015 Biological properties and nutritional values of bee products
Hesham El Seedi
- PP-016 Stingless bee´s honey: an ancestral food validated for its functional properties
Virginia Salomón
- PP-017 Phytochemicals from PhytoMed Honey with high docking affinity with SARS CoV-2 proteins and the traditional medicinal uses of their plant sources
Valma Roslyn Jessamy
- PP-018 Effect of the Ethanol Extract of Chilean Propolis on Senescent Rat Cartilage
Consuelo Arias Lattes

BEE BIOLOGY

- PP-019 Patrelina identification in *Apis mellifera iberiensis* through microsatellite markers
Jesús Yániz
- PP-020 Population variability of bees and drones (Hymenoptera: Apidae) in a congregation area in the high Andean zone of Boyacá, Colombia
Guillermo Salamanca Grosso
- PP-021 Requeening queenright honey bee colonies with queen cells in honey supers
Shelley Hoover
- PP-022 Modulation of protein and energy diets on consumption and their effect on immune cell population and survival of *Apis mellifera* worker caste
Karin Gloria Barrientos
- PP-023 Use of different commercial formulations of pollen and honey substitutes to promote population growth of *Apis mellifera jemenitica* beehives in Fujairah, UAE
James Salome
- PP-024 Effects of local domestication warrant attention in honey bee population genetics
Zheguang Lin
- PP-025 Patrelina identification in *Apis mellifera iberiensis* through microsatellite markers
Jesús Yániz
- PP-026 Wing morphometry subspecies differentiation in *Apis mellifera* using smartphone images and a free MATLAB-based tool
Jesús Yániz
- PP-027 A key gene for the climatic adaptation of *Apis cerana* populations in China according to selective sweep analysis
Ting Ji

SEPTEMBER 6TH, 2023 - Wednesday

BEE BIOLOGY

- PP-028 The effect of abdominal exposure to 2, 4-dichlorophenoxyacetic acid on nursing and foraging capabilities of honey bees *Apis mellifera* L.
Hyun Jee Kim
- PP-029 Examining the effects of pollen substitute diets on honey bee colony performance after overwintering in South Korea
Hyun Jee Kim
- PP-030 Scientific-based evidence illustrating honey-bee meticulous care for a naturally self-regulated hive
Marie-agnes Courty
- PP-031 Hygienic Behavior Of Africanized *Apis mellifera* Colonies In The Region Of Terenos-ms, Brazil
Matheus Portela Pinho
- PP-032 Evaluation of the effectiveness of liquid and solid energy diets in promoting the growth of Africanized colonies of *Apis mellifera* during the off-season in Brazil
Matheus Portela Pinho
- PP-033 Hygienic behavior of *Apis mellifera* L. hives on dead brood of workers and drones
Jorge Demedio Lorenzo
- PP-034 The quality of drones' semen stored under freezing conditions
Mikolaj Boranski
- PP-035 Breeding activities and mating control in three Balkan countries
Josipa Štavalj
- PP-036 Bionomic characteristics of *Scaptotrigona bipunctata* brood discs in two seasons of the year in the region of Maringá-Paraná-Brazil
Alessandra Benites
- PP-037 Apparent digestibility in honeybee *Apis mellifera* L.: titanium dioxide (TiO₂) as an inert marker
Matías Francisco Ledesma González
- PP-038 Honeybee colonies *Apis mellifera* L. perform orientation aggressiveness which varies among bred lines
Peter Njukang Akongte
- PP-039 *Apis mellifera* subspecies mitochondrial genome diversity
Leigh Boardman
- PP-040 Towards a molecular marker for defensive African-hybrid honey bees in the USA
Leigh Boardman
- PP-041 Breeding of *Apis cerana koreana* honey bees for honey production compared to the traditional collection method and Acof gene expression
Yong Soo Choi

SEPTEMBER 6TH, 2023 - Wednesday

BEE BIOLOGY

- PP-042 Cumulative food consumption, in the longevity and expression of the DWV, VG and MRJP1 genes, in *Apis mellifera* bees in the laboratory
José María Tapia González
- PP-043 Differences in the semen quality of *Apis mellifera* drones of selected lines along reproductive season in Balcarce district, Southeastern Buenos Aires Province, Argentina
Analía Martínez
- PP-044 Effect of the protein supplement PROSISA® on the posture and population of commercial hives during pollen harvest
Yhann Vallenás-Sánchez
- PP-045 Addressing the knowledge gap on bee diversity in Brazil
Guaraci D. Cordeiro
- PP-046 Construction of a 16S mini barcode library for french wild bees
Magalie Pichon
- PP-047 Identification of wild and domestic bees by non-destructive molecular methods
Magalie Pichon
- PP-048 Bee genome reconstruction through the sequencing of hive products
Kamila Canale Tabet
- PP-049 Molecular identification of the hygienic behavior in colonies of Africanized bees *Apis mellifera* L.
Tânia Patrícia Schafaschek
- PP-050 Gibberellic acid alters morphology and expression of the vitellogenin gene (VG) in *Apis mellifera* honeybees
Sandra Milena Diaz Puentes
- PP-051 Does the stingless bee *Melipona bicolor schencki* choose the tree species to build its nest in southern Brazil?
Sidia Witter
- PP-052 Agricultural intensification impairs cognitive abilities and the expression of genes associated with social responsiveness in honeybees
Pablo J Moja
- PP-053 Deep Learning for Queen Bee Detection in Honeybee Hives using biological signals
Pablo Ormeno-Arriagada
- PP-054 Innovations in honey bee ethology during propolis harvesting
Leonora Adamchuk
- PP-055 Understanding fermentation processes in stingless bees: implications for developing fermented feeds
Patrícia Miranda Pinto
- PP-056 DNA content and genotyping of the honeybee spermatheca
Andraž Marinc

SEPTEMBER 6TH, 2023 - Wednesday

BEE BIOLOGY

- PP-057 Aspects of the threats to the Carniolan bee *Apis mellifera carnica* in Slovenia
Dr. Petra Bole
- PP-058 Climate change: tolerance, survival and dehydration of *Apis mellifera iberiensis* subspecies under different temperature and relative humidity environments
Antonio Nanetti
- PP-059 The Canadian Bee Gut Project
Graham J Thompson
- PP-060 Development of bumblebee colonies of *Bombus bellicosus* and *Bombus pauloensis* under two nutritional diets
Juan Ignacio Davoine
- PP-061 Effect of packaging on the texture and dry matter of the protein supplement prosisa® in commercial nucleus colonies of *Apis mellifera*
Yhann Vallenás-Sánchez
- PP-062 Towards a more sustainable future: our multidisciplinary approach based on an innovative hatchery prototype for queen bee production
Mario Sarango Mogollón
- PP-063 Addressing knowledge gaps on stingless bees: A global data review
Denise Araujo Alves
- PP-064 Expression analysis of candidate genes associated with grooming behavior in *A. mellifera*
Romina Russo
- PP-065 Thermoregulatory mechanisms in africanized bees managed under high temperatures and intense solar radiation
Katia Peres Gramacho
- PP-066 A genetic improvement program for the native honeybee of the Iberian Peninsula, *Apis mellifera iberiensis*
Andone Estonba
- PP-067 The super-organism of a Honey bee colony and its social immunity
Grai St. Clair Rice
- PP-068 mtDNA melting analysis for quick characterization of Africanized honeybee *Apis mellifera* populations using honey samples
Edgardo Sarlo
- PP-069 Informative STR markers for identifying genetic characteristics of Ukrainian steppe bees
Tetyana Vasylykivska
- PP-070 Conservation status of *Apis mellifera ruttneri* inferred from whole genome sequences
M. Alice Pinto

SEPTEMBER 6TH, 2023 - Wednesday

BEE BIOLOGY

- PP-071 Modeling the effects of honey bee *Apis mellifera* premature self-removal behavior on colony survival
Jordan Twombly Ellis
- PP-072 Crude protein and in vitro digestibility of the protein supplement PROSISE® and its effect on *Apis mellifera* population and laying in commercial hives
Yhann Vallenas-Sánchez
- PP-073 Using image deep learning to measure flight speeds and patterns of honeybees *Apis mellifera* and bumblebees *Bombus terrestris* near their hives
Kyeong Yong Lee
- PP-074 Evaluation of reference genes for real-time quantitative PCR analysis from bumble bees *Bombus terrestris* of different
Kyeong Yong Lee
- PP-075 Comparison of volatile compounds emitted by drone and worker brood of *Apis mellifera* infested by *Varroa destructor* mites
María Lujan Corzo
- PP-076 'SafeAgroBee' and honey bee adaptation in local and non local environments under different managements systems
Filipi Janja
- PP-077 The Effect of Neonicotinoids on the Positive Transfer of Learning in the Visual Domain of Honeybees
Charisse Zou
- PP-078 *Tropilaelaps mercedesae* parasitism changes behavior and gene expression in honey bee workers
Jing Gao

BEEKEEPING ECONOMY

- PP-079 Status of the urban beekeeping in Latvia
Aleksejs Zacepins
- PP-080 Status of the migratory beekeeping in Latvia
Aleksejs Zacepins
- PP-081 Identification of challenges and opportunities for formalization in the honey production chain in the State of Paraná, Brazil
Eric Cezar De Camargo Walger
- PP-082 First National Honey Contest of Uruguay
Gabriela Tamaño
- PP-083 Why does save the bees mean save the planet?
Lucas Costa Cabral

SEPTEMBER 6TH, 2023 – Wednesday

BEEKEEPING ECONOMY

- PP-084 Development of the educational App, Bees in My Garden, as an innovative tool for learning about bees
Paola Hernández-Ching
- PP-085 “Market expansion by valuing honey products”
José Donoso
- PP-086 Honey from European quality schemes in Slovenia - challenge and opportunity
Tina Žerovnik
- PP-087 Teaching children the importance of consuming honey through talks and illustrated literature in Argentina
Veronica Maria Busch
- PP-088 Impacts of Climate Change on Beekeeping in Mediterranean Climates
Martina Gajardo
- PP-089 Adulteration of bee honey: situational analysis in Costa Rica
Paola Hernández-Ching
- PP-090 Modern teaching aids for training beekeepers and educating the wider public
Lidija Senič
- PP-091 Preliminary study on the application of the information technology system “ClassyFarm” to the apiary for the evaluation of honey bee colony welfare
Clara Montagnin
- PP-092 Rescuing Africanized honey bees as part of a sustainable business model
Ilan Lechter
- PP-093 What is the main purpose of World Bee Day?
Peter Kozmus
- PP-094 Key challenges for honey traceability in Mexico, an experience from True Source Honey Certified
Héctor Luis Régules Garibay
- PP-095 Walloon and Brussels beekeeping (Belgium): Small sector and big expertise
Orianne Rollin
- PP-096 Economic financial indicator for decision making in the beekeeping company
Roberto Saez
- PP-097 APlicité®, a national label for local authorities committed to bees and wild pollinators
Gabriel Peña
- PP-098 “Let the bee fly” – Conscientization Action in Brazil by the Non-Profit Organization “Bee or not to Be”
Daniel Malusá Gonçalves
- PP-099 Got your hives exposed to pesticides? What are your rights
Noa Simon Delso

SEPTEMBER 6TH, 2023 - Wednesday

BEEKEEPING ECONOMY

- PP-100 General beekeeping practices and main stressors identified by beekeepers in the Mediterranean
Antonio Nanetti
- PP-101 Carrying capacity of some agricultural crops and effect of distance
Janez Prešern
- PP-102 IPM4Bees: Attitudes About Honey Bees and Pollinator-Friendly Practices - A Survey of lowan Beekeepers, Farmers, and Landowners
Randall Cass
- PP-103 Sorting honeycombs to boost beekeeping enterprise turnover
Kodjo Logou Agossou
- PP-104 Beekeeping sector in the Scandinavian countries
Flemming Vejsnæs
- PP-105 Future of European beekeeping: threats, challenges and perspectives
Róbert Chlebo
- PP-106 Development of sensory panels for the definition and recognition of honeys from the Mediterranean basin
Amelia V. González-Porto
- PP-107 Situation of bee breeding in the Polloc village center, La Encañada, Cajamarca, Perú
Maivelin Claude Chunqui Cerquin
- PP-108 BRAGGOT: "A drink without limits, you just have to dare to discover it"
Pablo Antonio E. Maessen Bolla
- PP-109 Honeydew honey in Uruguay: sources and characteristics
Ciro Invenrizzi
- PP-110 Importance of the production of mead for the training and technical education of new winemakers in the agrotechnical school of Los Corralitos in the province of Mendoza - Argentina
Pablo Antonio E. Maessen Bolla
- PP-111 Women in argentine beekeeping
María Emilia Estrada
- PP-255 Raising Resilient Bees in rural pristine watershed located in Oregon, USA using closed breeding program and naturally reared queens without the use of grafting in commercial apiary family-sized operation
Eric Mcewen

SEPTEMBER 6TH, 2023 - Wednesday

BEEKEEPING FOR RURAL DEVELOPMENT

- PP-112 Youths and Beekeeping Technology in Developing Countries
Victoria Onyekachi Odimba
- PP-113 Eco- beekeeping, the apiculture based on the nature of low costs and inputs
Alexander Garcia
- PP-114 Damaged but managed: the partnership between military veterans and honey bees in health recovery
Pamela Forgrave
- PP-115 Empowering Rural Development through Medicinal Beekeeping and Apitherapy
Stefan Stangaciu
- PP-116 Generation of social capital between beekeepers and the University of O'Higgins
Andrea Julieta Müller Sepúlveda
- PP-117 Agricultural associations in the canary islands as instruments for the development of the regional bee fauna
M^a Loreto Fuertes Díaz
- PP-118 The efforts of Saudi Arabia Government towards flourishing sustainable beekeeping
Ahmad Alkhazim Alghamdi
- PP-119 Two Bees in a Podcast: Using Podcasts as an Effective Way to Communicate Apiculture Science
Amy Vu
- PP-120 Space in beekeeping: no pink beekeeping overalls
Liane Oliveira Castilhos
- PP-121 Beekeeping based on mutual welfare
Guido Ernesto Saldias Urzagaste
- PP-122 Strengthening of the beekeeping activity of the municipality of Delmiro Gouveia – AL through the Lagos do São Francisco Project
Renally Da Silva Medeiros
- PP-123 Organizational development plan as a value proposition of the cooperative of beekeeping producers Copap Ltda
Victor Alberto Rusas
- PP-124 Redesigning beehives to be affordable, efficient in pest management and having the combined advantages of standard bee hives-the case of 'intelligent' beehive hive concept
Abraham Addo Ansah Allotey

SEPTEMBER 6TH, 2023 - Wednesday

BEEKEEPING FOR RURAL DEVELOPMENT

- PP-125 Advance engineered top bar is africa's answer to the langstroth frames- for improved honey harvesting of over 100% yield without comb destruction in top bar hives
Abraham Addo Ansa Allotey
- PP-126 Apiculture: increasing the income of small beekeepers in the rural area of Sertão do São Francisco-Bahia
Eva Monica Sarmiento Da Silva
- PP-127 Apicultural craftsmanship and the settlement of young people in the semiarid region of pernambuco
Eva Monica Sarmiento Da Silva
- PP-128 Beyond Aid. Organized Beekeeping for Rural Social Economic Transformation: A Case Study of Happy Community Organization Beekeeping Project in Kenya
Linnah Koyiano Resuka
- PP-129 The notoriety of the Serra da Capivara Territory, Caatinga dry forest, in honey production
Juliana Nascimento Bendini
- PP-130 Scientific divulgation concerning to bees and beekeepers. The case of EUNK Magazine
María Emilia Estrada
- PP-131 Socioeconomic profile of female beekeepers and meliponiculturists in the north of the state of bahia
Catiana Da Conceição Veira Melquiades
- PP-132 Exploring *socioecological systems* in apiculture: A study of family farming communities in the 8th region of chile
Martín García

POLLINATION AND BEE FLORA

- PP-133 Pollinifer flora associated with cliserie forest systems in productive apiculture systems in Boyacá, Colombia
Guillermo Salamanca Grosso
- PP-134 Pollination biology of the melittophilous species *Calophyllum brasiliense* Cambess. (Calophyllaceae) in a fragment of dense rainforest in São Paulo (Brazil)
Cynthia Fernandes Pinto Da Luz
- PP-135 Production of melon (*Cucumis melo*) under a greenhouse using the bumblebee native *Bombus pauloensis* and honeybee as pollinators
Sheena Marie Salvarrey
- PP-136 Value of National Forest as Honey Resources and Pollinating Insects in Korea
Seunghwan Lee



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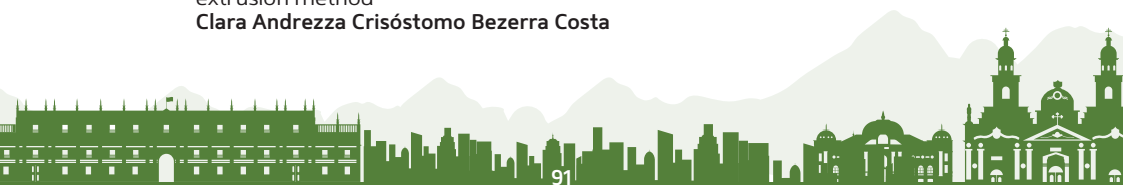
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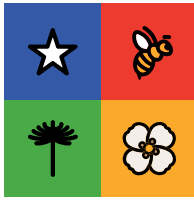
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