



**1st EAAP Workshop on Insect
Genetic Improvement,
Implementation, Impact**

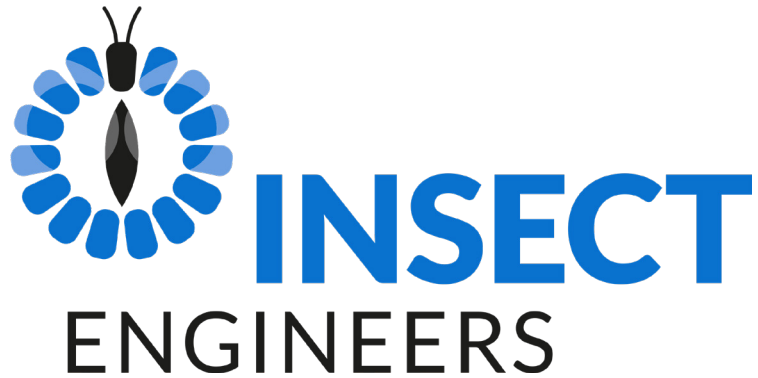
**GREECE - ATHENS
29 - 31 JANUARY 2025**

PROGRAMME EAAP 2025

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The European Federation of Animal Science (EAAP)

The main aims of the EAAP are to promote, by means of active co-operation between its members and other relevant international and national organisations, the advancement of scientific research, sustainable development and production systems; experimentation, application and extension; to improve the technical and economic conditions of the livestock sector; to promote the welfare of farm animals and the conservation of the rural environment; to control and optimise the use of natural resources in general and animal genetic resources in particular; to encourage the involvement of young scientists and technicians. More information on the organisation and its activities can be found at www.eaap.org.

Former Presidents

1949-1961	A.M. Leroy (France)
1961-1967	R. Trehane (United Kingdom)
1967-1972	J.M. Rijssenbeek (The Netherlands)
1972-1978	J.H. Weniger (Germany)
1978-1984	E.P. Cunningham (Ireland)
1984-1990	A. Roos (Sweden)
1990-1996	A. Nardone (Italy)
1996-2000	P. Solms-Lich (Germany)
2000-2004	A. Aumaitre (France)
2004-2008	J. Flanagan (Ireland)
2008-2012	K. Sejrsen (Denmark)
2012-2016	P. Chemineau (France)
2016-2020	M. Gauly (Germany)
2020-2024	I. Casasús (Spain)

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- Georgia HadjiPavlou (Cyprus)
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Alternate Auditor

- Jeanne Bormann (Luxembourg)

Secretary General

- Andrea Rosati

The European Federation of Animal Science (EAAP) has close established links with its sister organizations of American Society of Animal Science (ASAS), American Dairy Science Association (ADSAS), Canadian Society of Animal Science (CSAS) and Asociación Latinoamericana de Producción Animal (ALPA) and is also member of the World Association for Animal Production (WAAP).



Welcome to the 1st EAAP Insect Genetic improvement, implementation and impact Workshop in Athens

On behalf of the Organizing Committee, we are excited to invite you to the 1st EAAP IMP: Insect Genetic *IM*Provement, *IM*PLementation, *IM*Pact Workshop, scheduled for January 29th to 31st, 2025, in the historic city of Athens, Greece. This event will bring together scientists, researchers, and industry professionals worldwide to discuss insects' vital role in sustainable food production and environmental management.

Insect breeding is a fast-growing industry that requires a vibrant support community and tailored-to-need genetics research related to everything from genetic diversity and population structure, phenotyping, breeding objectives, to estimation of breeding values in insects. The aim of this workshop is to bring together scientists working on various insect species and aspects of insect breeding, to present state-of-the-art research, spur debate across species and fields, and to train new generation of insect breeders.

The workshop is organized in tight collaboration with Insect-IMP COST Action that strives to connect edible and non-edible insects, academia and industry, as well as insect and livestock breeding to transfer knowledge to support insect genetic improvement to enhance food security and sustainability while reducing environmental impact.

Athens, with its rich cultural heritage and historical significance, offers an inspiring venue for this gathering. Attendees will have the opportunity to engage in meaningful discussions while also exploring the city's ancient sites and vibrant culture.

We are confident that the 1st EAAP Workshop will serve as a platform for collaboration, innovation, and knowledge exchange. We look forward to welcoming you to Athens for an enriching and inspiring experience.

Organizers of the 1st EAAP Insect Genetic improvement, implementation and impact Workshop

Scientific Committee

- Gertje Petersen - LAVES Institute for Apiculture Celle
- Christoph Sandrock - FIBL Research Institute of Organic Agriculture
- Sreten Andonov - Ss. Cyril and Methodius University
- Esther Ellen - Wageningen University & Research
- David Deruytter - INAGRO
- Mert Kükreer - Middle East Technical University
- Jana Obšteter - Agricultural Institute of Slovenia
- Olga Ameixa - University of Aveiro
- Laura Gasco - University of Turin
- Anton Gligorescou - Aarhus University
- Christos Athanassiou - University of Thessaly
- Christos Rumbos - University of Thessalytitute for Apiculture Celle
- Antonis Tsagarakis - Agricultural University of Athens
- Eleni Tsiplakou - Agricultural University of Athens

Organizing Committee

- Emmanouil Flemetakis - Agricultural University of Athens
- Eleni Tsiplakou - Agricultural University of Athens
- Andrea Rosati - EAAP
- Riccardo Carelli - EAAP



About the Agricultural University of Athens

The Agricultural University of Athens, Greece, is a distinguished institution committed to advancing research and education in agricultural sciences and related fields. Founded in 1920, it has a rich history of contributing to innovations in agriculture, environmental sustainability, and rural development. The university's mission is to provide high-quality education while fostering research that addresses contemporary challenges in agriculture and food production.

As a prominent player in Greece's agricultural research landscape, the university focuses on various disciplines, including plant science, animal production, food technology, and agricultural economics. The faculty consists of experienced scientists and researchers who engage in innovative projects, collaborating with both national and international research networks to enhance knowledge transfer and application in the agricultural sector.

The Agricultural University of Athens is dedicated to sustainability and environmental stewardship, striving to develop practices that support agricultural productivity while preserving natural resources. The institution offers comprehensive educational programs that equip students with the necessary skills to tackle global agricultural challenges.

In addition to its academic and research activities, the university maintains state-of-the-art laboratories and research facilities, providing an optimal environment for pioneering studies. It also participates in numerous European Union-funded projects, further strengthening its role as a center of excellence in agricultural research.

For more information about the Agricultural University of Athens, you can visit [official website](#).

Industry Members Club



EAAP started in 2023 a new initiative to create closer connections between European livestock industries and the animal science network. Therefore, the “EAAP Industry Club” was shaped with the specific aim of bringing together the important industries of the livestock sector with our European Federation of Animal Sciences. All companies dealing with animal production (nutrition, genetic, applied technologies, etc.) are invited to join the “EAAP Industry Club” because industries will have opportunity to increase their visibility, to be actively involved in European animal science activities, and to receive news and services necessary to industries. In addition, through the Club, industries will enlarge their scientific network and will receive specific discounts on sponsoring activities.

The Industries that already joined the “EAAP Industry Club” are:

illumina®

NEOGEN®

eurolysine
Avril



VETAGRO®
LIKE NO ONE ELSE®

labo
gena
DNA analysis

C-LOCK INC.
Pressure and Control Feed Intake and Emissions

The Club gives:

Visibility • Company name and logo at EAAP website and all relevant documents • Slides with name and logo at Official Events • Priority links with EAAP Socials • Invite, through EAAP dissemination tools and socials, people to events organized by your company • Information disseminated through a brand new Industry Newsletter • Networking • Joining the Study Commissions and Working Groups • Suggest topics to be considered for Annual Meetings Scientific Sessions • Organize Professional Panel through the EAAP platforms • Economic Benefits • One free registration to each Annual Meeting and at every meeting organized by EAAP • Five individual memberships at no cost • Many possible discounts (-30%) to increase company visibility through: EAAP Newsletter, EAAP website, EAAP Annual Meetings and workshops • Support young scientist by sponsoring scholarships named by the company • Co-Organize and sponsor webinars

Make yourself more visible within the livestock industry via the animal science network!

For more information please contact eaap@eaap.org

About Athens



Athens, the capital of Greece, is one of the oldest continuously inhabited cities in the world, with a history spanning over 3,400 years. Renowned as the cradle of Western civilization, Athens was a major center for arts, philosophy, and politics in ancient times. By the 5th century BC, it emerged as a powerful city-state, particularly during the Golden Age of Pericles, when it became the heart of democracy and cultural development.

The historic center of Athens is home to several UNESCO World Heritage Sites, most notably the Acropolis, which features the iconic Parthenon temple dedicated to the goddess Athena. This ancient citadel has been a symbol of the city and its historical significance for centuries. The city has played a crucial role in various historical events, including the Persian Wars, the Peloponnesian War, and the rise and fall of the empire.

During the Renaissance and the Age of Enlightenment, Athens experienced a revival of interest in its ancient heritage, contributing to the development of modern Greek identity. The establishment of the University of Athens in 1837 further solidified the city's role as a center of education and intellectual discourse.

In the 20th century, Athens underwent significant urban development, especially in preparation for the 2004 Summer Olympics, which showcased the city to a global audience. Today, Athens is a vibrant metropolis, known for its rich cultural scene, including museums, theaters, and galleries, as well as its lively markets and diverse cuisine. The city hosts numerous cultural events and festivals that celebrate its historical legacy and contemporary creativity, attracting millions of tourists each year.

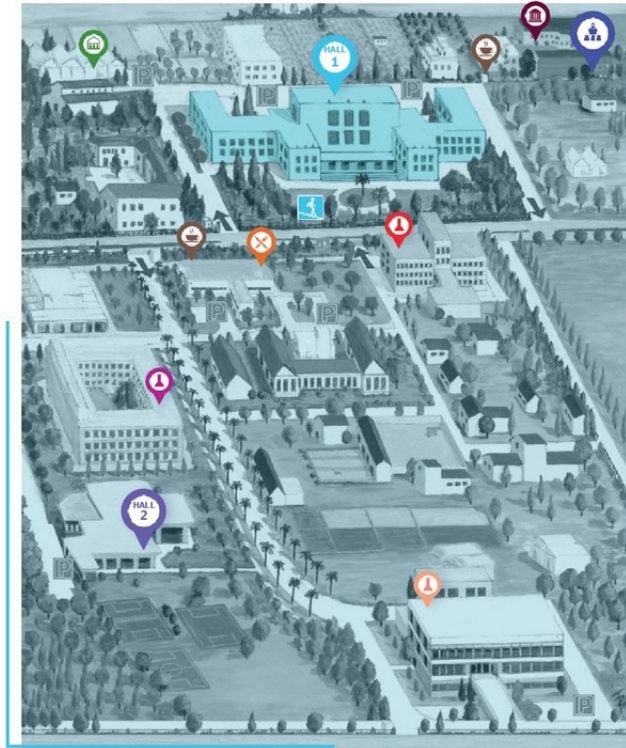
Sightseeing in Athens during Winter

1. **Acropolis:** (Ticket 10-20€). Metro Line #2 - Red Color, Station 'Acropolis' and then 10 min walk
2. **Acropolis Museum:** (Ticket 20€). Metro Line #2 - Red Color, Station 'Acropolis'
3. **Plaka (Traditional Neighborhood):** Metro Line #2 - Red Color, Station 'Acropolis'
https://www.tripadvisor.com/Attraction_Review-g189400-d277449-Reviews-Plaka-Athens-Attica.html
4. **National Archaeological Museum:** (Ticket 10€). Metro Line #2 - Red Color, Station 'Omonoia' and then 10 min walk
5. **Stavros Niarchos Foundation Cultural Center:** <https://www.snfcc.org/en/> (By bus, #550, #A2, #B2, bus stop 'Interamerikan', about 40 min from Athens center)
6. **National Museum of Contemporary Art Athens:** <https://www.emst.gr/en> (Ticket 8€). (Metro Line #2 - Red Color, Station 'Syggrou-Fix')

Workshop venue



EAAP Insects Workshop 29th-31th January 2005



AGRICULTURAL UNIVERSITY OF ATHENS UNIVERSITY CAMPUS MAP

-  **Central Administration Building:
Auditorium in 1st and 2nd floor**
-  **Library**
-  **Conference Centre : 3rd Auditorium**
-  Faculty of Animal Science & Production
-  Faculty of Biotechnology
-  Faculty of Management of Natural Resources & Agricultural Engineering
-  Restaurant
-  Coffee shop
-  Agricultural Museum
-  Greenhouse
-  Underground pedestrian crossing

Address: Agricultural University of Athens, 75 Iera Odos str., 11855 Athens, Greece ([Google maps](#))

The workshop will take place in two different building (see map below):

1. Central Administration building

Room: Auditorium 2nd floor:

- Wednesday 29th January 2025 - Session 2 - Interplay of genetics, environment and community (and the role in genetic improvement)
- Thursday 30th January 2025 - Training 2 - Population simulations Training
- Friday 31st January 2025 - Session 5 - Components of Breeding Program Design in Farmed Insects

Room: Auditorium 1st floor:

- Thursday 30th January 2025 - Training 3 - Dissemination

2. Conference Centre

Room: 3rd Auditorium

- Wednesday 29th January 2025 - Training 1 - Crash Course Quantitative genetics
- Wednesday 29th January 2025 - Session 1 Genetic diversity, population structure and inbreeding management
- Thursday 30th January 2025 - Plenary session
- Thursday 30th January 2025 - Poster tour
- Friday 31st January 2025 - Session 4 - Mating behavior and mating control (in farmed insects)
- Friday 31st January 2025 - Mini plenary

Useful information

Official language

The official language of the EAAP annual meeting is English. No translation will be provided.

Passport and Visa

Greece is a member of the European Union, allowing nationals from other EU countries to travel without a visa. Additionally, citizens from several non-EU countries, including the United States, Australia, and New Zealand, can enter Greece without a visa for stays of up to 90 days. For specific visa requirements, please consult the [Schengen Visa Info] (<https://www.schengenvisainfo.com/>).

Official Invitation and Certification

Participants can request an official letter to assist with administrative requirements. This invitation does not impose any financial obligations on the organizing committee. A certificate of attendance will be provided to all registered participants.

Liability and Insurance

The organizing committee is not liable for personal accidents or the loss or damage of participants' private property. Participants are encouraged to obtain their own travel and health insurance.

Health and Emergency

In case of an emergency, call 112, the European emergency number, for assistance from relevant services.

Currency

The currency in Greece is the Euro (EUR). Current exchange rates can be checked through financial news sites or currency exchange services.

Local Time Zone

Greece operates on Eastern European Time (EET, UTC/GMT +2) and observes Daylight Saving Time (EEST, UTC/GMT +3) during the summer months.

Climate

Athens has a Mediterranean climate characterized by hot, dry summers and mild, wet winters. Summer temperatures can reach up to 35°C (95°F), while winter temperatures typically range from 5°C to 15°C (41°F to 59°F). The best times to visit are spring and autumn when the weather is pleasant.

Electricity

Greece uses type C and F electrical sockets, which accommodate two round pins. The standard voltage is 230V, with a frequency of 50Hz.

How to Reach the Venue

From/To the airport:

- The easiest and most convenient way is to take the **Metro** (Line #3 - Blue color), to the city center (Syntagma Square). Travel time is approximately 40 minutes. Trains run every 30 minutes, 7 days a week from 6:30 am to 11:30 pm. One way tickets cost €9, return tickets cost €16.
- **By Bus.** 24-hour express buses connect Athens International Airport with the Syntagma Square (Bus Number X95), which has non-stop services operate daily. All buses drop off passengers at the Departures Level and depart from the Arrivals Level. Bus tickets are sold at the ticket booth outside the Arrivals hall (between Exits 4 and 5.) One way tickets cost €5.50.
- **By Taxi.** Taxis are available outside Exit 3 of Arrivals Level. A taxi from the airport to the city center costs a flat rate of €40 from 5 am to midnight, and €55 from midnight to 5 am. The rate is determined by the time of arrival at the destination and includes all applicable surcharges

From the City Center

- **Hotels close to Syntagma Square.** In order to get to the workshop venue, the easiest and most convenient way is to take the Metro (Line #3 - Blue color) and then continue on foot. The closest Metro station to the AUA is 'Kerameikos' (950m, about 15min walking)
- **From Omonoia Square.** Take the bus #856 (AIGALEO - YMITTOS - DAFNI) from '[Omonoia-Menandrou](#)' bus station. There are two bus stop directly at the workshop venue (after 6 and 7 st, respectively, approx. 12 min). The stops are "GEOPONIKH SXOLH" and 'EBGA'
- **From Karaiskaki Square:** Suggested way by Metro. Take Metro Line #2 (Red Line) from Metaxourgeio Station to Syntagma Square. In Syntagma Square change to Line #2 (Blue Line). See bullet point #1

Tickets for Public Transport

• Tickets and passes for public transport are sold at ticket booths and machines in all Athens Metro and tram stations. A standard ticket on Athens public transport costs €1.20 and can be used for 90 minutes on any form of public transport (except services to/from the airport). Moreover, there is a Day Pass (€4.10, valid for unlimited travel except airport services) for 24 hours), a 5-Day Ticket (€8.10, valid for unlimited travel on all modes of transport, except airport services and bus line X80, for 5 days) and a 3-Day Tourist Ticket (€20, valid for unlimited travel (including 1 round trip to/from Athens International Airport). 3-day passes are available at the bus and metro ticket kiosks at Athens International Airport, Omonia, Syntagma, Thissio, Monastiraki, Acropolis and Piraeus stations.

For more detailed information, you can consult the [Athens Official Tourist Website](#)

Information for participants

Registration desk

The registration desk will be located at the entrance of the Conference Centre of the Agricultural University of Athens and will open at 8:00 on Wednesday 29 January 2025.

To Authors

Authors who do not wish to have their PDF presentations or posters made available on the EAAP website must notify EAAP by February 10, 2025. This can be done by sending an email to riccardo@eaap.org. After this date, EAAP will assume permission to include the presentation/poster on the website.

Posters

Physical boards for poster presentations will be provided next to the registration desk at the entrance of the Conference Centre of the Agricultural University of Athens. Posters should be in portrait format and A1 size (594 x 841 mm).

Theatre Presentation Upload Desk

The upload desk for theatre presentations will be available at the registration desk at the entrance of the Conference Centre of the Agricultural University of Athens. The support team will assist participants with the upload process. Please ensure that your presentation is on a portable USB drive. Meeting rooms will be equipped with MS Windows computers, so PowerPoint presentations (*.ppt; *.pptx) are preferred. When preparing your presentation, allow approximately 3 minutes for questions and discussion at the end.

Lunches and coffee breaks

Lunches and coffee breaks will take place in the area near to the registration desk at the entrance of the Conference Centre of the Agricultural University of Athens.

Social dinner

The social dinner will take place in the Central Administration Building; the room will be communicated later on.

Conference Website

The 1st EAAP Insect Genetic improvement, implementation and impact Workshop website is live and optimized for smartphone navigation. It contains detailed information about the conference program and venue. You can visit the conference website at the following link: <https://insectimp.eaap.org/>

Conference App

The conference program will be available for all delegates by downloading the app "EAAP" available for iOS/Android.

Scientific programme

Wednesday 29 January

Training 1.

Crash Course Quantitative genetics

Room: Conference Centre/3rd Auditorium
Trainer: Ewa Sell-Kubiak (Poznan University of Life Sciences)
Time: 8:30 - 12:30
Coffee Break: 10:30

Session 1. Genetic diversity, population structure and inbreeding management

Room: Conference Centre/3rd Auditorium
Chair: Sandrock / Obsteter
Session Type: Theme session

	Theatre Session 1	Book of Abstracts page
14:00	A Preliminary Draft Pangenome of Black Soldier Fly (<i>Hermetia illucens</i>): Structural and Genetic Insights from Diverse Populations. <i>H. Rosche-Flores, C. Picard</i>	13
14:30	Diverse Genomic signatures of <i>Hermetia illucens</i> : Tools for comprehensive analysis of diversity" <i>B. Gradus, S. Klompus, S. Espinoza</i>	13
14:45	Building a reference imputation panel and optimizing imputation strategies for low-pass sequencing of Black Soldier Fly <i>P. Muchina, J. Kinyua, F. Khamis, C. Tanga, G. Gebreyesus, G. Sahana, Z. Cai</i>	14
15:00	If one is not enough - Using whole-genome sequencing data from pooled workers to explore the admixture pattern of honey bee populations <i>M. Neuditschko, S. Smith, G. McCormack</i>	14
15:15	The bug and the bridgehead: global colonisation patterns of the black soldier fly inferred from metapopulation genetic structure <i>C. Sandrock, T. Generalovic, M. Kapun</i>	15
15:30	Geography and Climate Shape Genetic Diversity in Black Soldier Fly Populations Across Native and Introduced Ranges <i>M. Kükre, C. Sandrock</i>	15
15:45	AI and Molecular Taxonomy: A Comprehensive Approach to Aquatic Macroinvertebrate Identification and Genetic Diversity in the Balkans <i>D. Savić-Zdravković, A. Samardžić, A. Milosavljević, K. Stojanović, B. Predić, M. Radenković, P. Simović, D. Milošević</i>	16
16:00	Coffee Break	
16:30	Population genomics from a food matrix: estimating csd variability using next generation sequencing on <i>Apis mellifera</i> DNA present in honey <i>S. Bovo, A. Ribani, V. Taurisano, G. Schiavo, M. Bolner, F. Bertolini, L. Fontanesi</i>	16
16:45	Evidences of recent genome domestication in <i>Tenebrio molitor</i> using population and quantitative genomics <i>L. Rocha Ferreira, S. Haddad, L. Panunzi, K. Labadie, Q. Li, C. I. Rumbos, K. Paul, T. Lefebvre, E. Sellem, M. A. Madoui</i>	17
17:00	Exploring the fitness traits of cross-breeding in <i>Tenebrio molitor</i> : Insights from laboratory and large-scale trials <i>C. Adamaki-Sotiraki, D. Deruytter, C. Rumbos, C. Athanassiou</i>	17
17:15	Can we use crossbreeding in black soldier fly to improve production? <i>R. Meyermans, L. Broeckx, J. Mondelaers, W. Gorssen, L. Fronincxk, S. Janssens, S. Van Miert, N. Buys</i>	18
17:30	Genomic phylostratigraphy reveals a wealth of <i>Hermetia illucens</i> species-specific genes of unknown function <i>M. Futo, N. Kasalo</i>	18

Session 2.

Interplay of genetics, environment and community (and the role in genetic improvement)

Room: Central Administration Building/Auditorium 2nd floor

Chair: Petersen / Gasco

Session Type: Theme session

	Theatre Session 2	Book of Abstracts page
14:00	Using artificial selection tools to increase neonates' survival rate in Black Soldier Fly (<i>Hermetia illucens</i>) after suspension <i>N. Bonda, M. Zabar, Y. Politi</i>	19
14:15	Correlated Response to Selection for Increased Body Weight on Fecundity in <i>Hermetia illucens</i> <i>K. Shrestha, P. Junes, E. Van Den Boer, I. Christianen, R. Jacobse, E. Schmitt</i>	19
14:30	A Novel PCR-Based Method for Early Sex Identification in Black Soldier Fly (<i>Hermetia illucens</i>) Larvae <i>I. Nevo-Yassaf, A. Sloutskin, I. Alyagor</i>	20
14:45	High larval density and exposure to entomopathogenic fungi adversely affect key life history traits and lead to increased immune investment in the black soldier fly. <i>L. O. Opere, A. B. Jensen, A. Lecocq, S. Holm, T. Esperk</i>	20
15:00	Proteomic Analysis of Invertebrate Iridescent virus-6 infected DS2 Cells <i>I. A. Ince, S. Boeren</i>	21
15:15	Silkworms as an Alternative Insect Protein Source: Nutritional Value and Environmental Sustainability <i>S. Mylonas, M. Georgiadou, M. Stamouli, K. Mountzouris, A. Tsagkarakis</i>	21
15:30	Comparative larval growth of <i>Alphitobius diaperinus</i> populations on various substrates <i>G. Baliota, C. Rumbos, N. Steeghs, C. Athanassiou</i>	22
15:45	Do strains affect insect farming efficiency? The effect of <i>Tenebrio molitor</i> strains on adult fecundity and larval growth <i>C. Adamaki-Sotiraki, C. Rumbos, C. Athanassiou</i>	22
16:00	Coffee Break	
16:30	Pervasive plasticity: Genotype-by-environment interactions for larval performance and body composition traits in the black soldier fly <i>C. Sandrock</i>	23
16:45	Modelling the Impact of Non-Native Honey Bee Importation on Native <i>Apis mellifera mellifera</i> Populations <i>I. De Carlos, L. Strachan, G. McCormack, G. Gorjanc, J. Obsteter</i>	23
17:00	How genetic integrity in honey bees, addressed in a regional law, can be monitored using mitochondrial DNA <i>V. Taurisano, A. Ribani, D. Sami, K. E. Johnson Nelson, G. Schiavo, V. J. Utzeri, L. Fontanesi</i>	24
17:15	A Glow in the Waste: Advancing Food Safety with Transgenic Fluorescent Black Soldier Fly Larvae <i>J. Oliveira, C. Martins, B. Gonçalves, R. Assunção, D. Murta, L. G. Guilgur, A. Trindade</i>	24
17:30	Optimizing COI Barcoding for Molecular Detection of Hidden Insect Infestations in Rice Grains: Evaluating Primer Efficiency and Detection Limits <i>I. G. De Sousa, R. Oliveira, C. Almeida, C. Brites</i>	25

Thursday 30 January

Session 3.

Plenary Session

Room: Conference Centre/3rd Auditorium

Chair: Petersen / Obsteter

Session Type: Plenary session

	Theatre Session 3	Book of Abstracts page
8:45	Ancient DNA, museomics and insect domestication <i>P. Librado</i>	25
9:30	How Genomics Revolutionized Crop and Animal Genetic Breeding <i>G. Ronen</i>	26
10:00	Population and Functional Genomics of Black Soldier Fly Mass Rearing <i>C. Rhode</i>	26
10:30	Coffee Break	
11:00	Aquaculture Breeding development and what we can learn for insect breeding <i>P. Haffray</i>	27

Posters Tour

Location: Entrance of the Conference Centre

Time: 11:45 - 12:30

		Book of Abstracts page
04.01	Understanding the reproduction of Hermetic illucens under various conditions <i>G. Çalışkan Koç, Ö. Süfer</i>	27
04.02	Impact of genetic variation and substrate choice on the performance of the black soldier fly (<i>Hermetia illucens</i>) <i>L. Broeckx, S. Berrens, L. Frootinckx, A. Wuyts, S. Van Miert</i>	28
04.03	The Potential of Edible Insects as Sustainable Protein Sources in Animal Nutrition: Opportunities and Challenges <i>N. Esenbuga</i>	28
04.04	Turning food waste and agri-food byproducts into animal feed ingredients and organic fertilizer using insects – Towards pilot implementation in Greece <i>A. Kolorizos, A. Yarali, Paisios, E. Paisios, C. Rumbos, C. Athanassiou</i>	29
04.05	The Role of Consumer Knowledge and Attitudes in the Adoption of Insect-Fed Poultry <i>E. L. Karara Geršak, A. Kuhar, L. I. Pečan</i>	29
04.06	Filling the gap - Genetics of Selection in Honeybees <i>P. Brascamp, A. Uzunov, P. Bijma, M. Du, S. Andonov</i>	30
04.07	Genome-wide association study in <i>Tenebrio molitor</i> reveals reproduction, development and growth quantitative trait loci <i>L. Rocha Ferreira, S. Haddad, L. Panunzi, K. Labadie, T. Lefebvre, E. Sellem, M. A. Madoui</i>	30
04.08	Utilization of the edible insects in food industry <i>O. Sufer, G. Çalışkan Koç</i>	31
04.09	Can mate-choice enhance or inhibit genetic rescue in commercially reared parasitoid biocontrol agents? <i>L. Corral, A. Karley, R. Boulton</i>	31

Training 2.

Population simulations

Room: Central Administration Building/Auditorium 2nd floor
Trainer: Gregor Gorjanc (The Roslin Institute, University of Edinburgh)
Time: 14:00 - 18:00
Coffee Break: 16:00

Training 3.

Dissemination

Room: Conference Centre/3rd Auditorium
Trainers: Andrea Rosati - Riccardo Carelli - Federica Motterle (EAAP)
Time: 14:00 - 18:00
Coffee Break: 16:00

Friday 31 January

Session 4.

Mating behavior and mating control (in farmed insects)

Room: Conference Centre/3rd Auditorium
Chair: Kükre / Ameixa
Session Type: Theme session

Theatre Session 4	Book of Abstracts page
8:30 How many samples are sufficient for testing the reliability of mating stations in honey bees (<i>A. mellifera</i>)? <i>S. Andonov, B. Dahle, M. Kovačić, A. Marinč, A. Moškrič, J. Prešern, B. Pavlov, Z. Puškadija, A. Uzunov</i>	32
8:45 Optimizing pedigree reconstruction and patriline determination in honeybees <i>L. K. Strachan, J. Bubnič, J. Prešern, G. Gorjanc, J. Obšteter</i>	32
9:00 Mating behaviour checking in the black soldier fly (<i>Hermetia illucens</i> L.) using SNP data: parentage assignment for Pedigree reconstruction <i>A. Donkpegan, A. Guigue</i>	33
9:15 Mating behaviour and mating control (in farmed insects), what can we learn from biological control? <i>O. Ameixa</i>	33
9:30 Can cryptic sex enhance the performance of an asexual aphid parasitoid? <i>R. Boulton</i>	34
9:45 Unlocking the Potential of <i>Zophobas morio</i> : Nutritional and Reproductive Insights <i>P. Soulioti, C. Adamaki-Sotiraki, C. I. Rumbos, C. G. Athanassiou</i>	34
10:00 Is age just a number? Investigating the effects of male and female age on the reproduction of <i>Tenebrio molitor</i> L. <i>A. Resconi, C. Adamaki-Sotiraki, M. Rigopoulou, C. Athanassiou</i>	35
10:15 Impact of Adult Body Size on Reproductive Performance in <i>Hermetia illucens</i> (Diptera:Stratiomyidae) <i>Y. Riabtseva, B. Grodzki, M. Tejada, M. Bolard</i>	35
10:30 Coffee Break	
11:00 Crossroads of preference: oviposition and developmental success in black soldier fly rearing <i>T. Klammsteiner, L. Tekaatt, E. Gemassmer, C. D. Heussler, K. Brandt, M. Ayasse, H. Insam, B. C. Schlick-Steiner, F. M. Steiner</i>	36
11:15 Interkingdom-interactions in black soldier fly oviposition <i>E. Gemassmer, T. Klammsteiner, C. D. Heussler, K. Brandt, M. Ayasse, B. C. Schlick-Steiner, F. M. Steiner</i>	36

Session 5.

Components of Breeding Program Design in Farmed Insects

Room: Central Administration Building/Auditorium 2nd floor

Chair: Andonov / Skrubbeltang Hansen / Deruytter / Ellen

Session Type: Theme session

	Theatre Session 5	Book of Abstracts page
8:30	Characterization of Gut Microbiota in <i>Chironomus riparius</i> Under Natural and Laboratory Conditions <i>A. Samardžić, T. Janakiev, M. Petrović, J. Miljković, N. Stanković, I. Dimkić, J. Stojanović, Đ. Milošević, D. Savić-Zdravković</i>	37
8:45	Dietary Protein Source and Level Influence the Free Amino Acid Composition of Black Soldier Fly Larvae (BSFL) <i>S. Y. Chen, C. Ulrichs, I. Mewis, W. Yakti</i>	37
9:00	High-throughput phenotyping of Black Soldier Flies – A survey of challenges and needs in the industry <i>I. Fodor, A. Bouwman, A. Chauhan, E. Ellen, T. Veldkamp, S. Naser El Deen</i>	38
9:15	Automated Recording Approaches reveal Novel Traits in the Honeybee (<i>Apis Mellifera</i>) <i>D. Gupta, G. Petersen, P. Fennessy, P. Dearden</i>	38
9:30	A case study of selective breeding in the Biological Control industry - Improving mass rearing of a predatory mite, phenotyping, selecting and identifying molecular markers <i>A. Tabic, R. Ben Ami, M. Lalzar, T. Katz, S. Steinberg</i>	39
9:45	The adaptive design of breeding objectives of Black Soldiers Flies (<i>Hermetia illucens</i>): - an example from one of the earliest European farms and processors <i>S. Knoll</i>	39
10:00	Evaluation of selective breeding programme designs for black soldier fly larvae body weight <i>L. A. De Castro Lara, M. Martinez Castellero, I. Pocrnic, T. De Paula Oliveira, J. Obšteter</i>	40
10:15	Genetic parameters for honey production in a recently created Buckfast bee breeding nucleus in France <i>J. D'Ambrosio, R. Azémar, B. Poirot, D. D. Decante, A. Decourtye, M. Sourdioux, B. Basso, F. Phocas, P. Haffray</i>	40
10:30	Coffee Break	
11:00	Framework and Design of the FBN Breeding Program for Enhanced Efficiency in Black Soldier Fly (<i>Hermetia illucens</i>) <i>A. A. Musa, N. Reinsch, D. Wittenburg, H. Reyer, K. Wimmers, G. Daş, M. Mielenz, C. C. Metges</i>	41
11:15	Strong potential for selection for larger larval size in the black soldier fly (<i>Hermetia illucens</i>) <i>R. M. Zaalberg, L. B. Andersen, L. S. Hansen, G. Gebreyesus, M. Henryon, K. Jensen, H. M. Nielsen</i>	41

Session 6.

Mini plenary session

Room: Conference Centre/3rd Auditorium

Chair: Petersen / Obsteter

Session Type: Plenary session

	Theatre Session 6	Book of Abstracts page
11:30	Innovative phenotyping systems to advance selective breeding in black soldier fly <i>G. Gebreyesus</i>	42
12:00	Joint workshop wrap-up	

