



EAAP

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of Animal Science

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EDITORIAL

EDITORIAL BY THE SECRETARY GENERAL

The Delicate Intersection of Religious Freedom and Animal Welfare in European Slaughter Practices

The challenge of reconciling laws widely accepted in European culture, such as mandatory stunning of animals before slaughter, with the religious needs of Muslim and Jewish communities has long been overlooked. This dilemma, considered legitimate by both sides, risked causing conflicts and was surprisingly absent from decisive political agreements. Instead, the issue was addressed by the judiciary rather than politicians.

The origins of this issue trace back to last October, when Belgium's Constitutional Court rejected an appeal by the Jewish and Muslim communities against a prior European Court of Justice ruling that permitted EU states to ban ritual slaughter. Although EU regulations generally prohibited unstunned animal slaughter, exceptions were maintained for ritual slaughter, acknowledging the freedom of worship for diverse religious groups.

The Belgian Constitutional Court, however, advocated stunning animals in all situations, even at the expense of religious practices, prioritizing animal welfare during the moment of sacrifice. Recently, on February 13th, the European Court of Human Rights affirmed the Belgian Constitutional Court's decision. While acknowledging the interference with freedom of religion, the court deemed the ban justified and proportionate for the widely accepted goal of protecting animal welfare.

A notable grey area remained: the killing of animals in hunting, fishing, and during cultural and sporting events remained exempt from prior stunning, as these practices were deemed incomparable to the ritual slaughter of farm animals for meat production.

It is not within my remit to pass judgment on the decision's merit; opinions on the matter naturally vary. However, it is crucial to highlight that this decision establishes a significant precedent regarding the balance between religious freedom and animal protection. The court recognized the importance of both principles but asserted that, in this case, public interest in animal welfare prevails, emphasizing animal protection as a concept of higher public interest than religious interests. The delicate equilibrium struck by this decision is likely to spark future controversies on similar issues.

Andrea Rosati

News from EAAP

Final days to submit an abstract for the 3rd Mountain Livestock Farming Systems Meeting

We extend a warm invitation to animal scientists to contribute their expertise to the 3rd Mountain Livestock Farming Systems Meeting. This unique event will focus on crucial topics such as the adaptation of mountain livestock farming to climate change, interactions between farming systems and wildlife, product quality, ecosystem services, local breeds, the social role of livestock in mountain areas, forage systems, economic enhancement, new technologies, and the challenges and perspectives of transhumance in European mountains. We understand the importance of your research in advancing these critical discussions. The abstract submission deadline has been extended to **February 26th**, providing you with additional time to share your insights. Join us in fostering collaboration and driving innovation in mountain livestock farming. By participating to this meeting, you will be able to share your views and researches and learn from your colleagues about mountain livestock farming systems. The meeting will be held in Clermont-Ferrand (France) in the Auvergne region. For more info, please [visit the website](#).

Abstracts Submission for the 2024 EAAP Annual Meeting

We invite animal scientists to contribute their valuable research to the EAAP 2024 Annual Meeting that will be held on September 1st to 5th in the Renaissance capital Florence (Italy). The EAAP Annual Meeting provides every year a platform for sharing innovative insights, fostering collaboration, and advancing the field of animal science. In 2023 The EAAP Meeting was the world largest animal science conference! We encourage you to submit your abstracts for consideration, as your expertise plays a very important role in shaping the future of our industry. Participating to EAAP is a unique opportunity to showcase your research, exchange ideas, and engage with fellow

friends and colleagues from around the world. Kindly note that the deadline for abstract submission is fast approaching on **March 1st, 2024**. Your participation is integral part to the success of the conference. We look forward to welcoming you to the vibrant scientific community at EAAP 2024. For more info, including abstracts submission, proposed sessions and meeting registration, please [visit the meeting website](#).

Inaugural Collaboration: EAAP and WPSA Unite for a Joint Session on Slow-Growing and Dual-Purpose Genotypes in EU Farming Systems

During the 75th Annual Meeting there will be the first important cooperation between EAAP and the World Poultry Science Association (WPSA): the creation of a joint session titled: "Slow-growing meat-type and dual purpose genotypes for conventional and alternative farming systems in the EU". The EAAP Poultry Working Group (PWG), led by Katarzyna Stadnicka, was instrumental to organize the session in cooperation with WPSA. The chairs of the session will be Massimiliano Petracci (University of Bologna, Italy) representing WPSA and Gürbüz Daş (FBN Research Institute for Farm Animal Biology Dummerstorf, Germany), member of the EAAP working group. Two keynote speakers are already planned, Cesare Castellini (University of Perugia, Italy) and Anne Collin-Chenot (INRAE, France). The session will deal with the use of slow growing meat-type chickens and dual-purpose genotypes in alternative farming systems in the EU. A genotype is considered adaptable if its performance is stable enough in different environments. As it is crucial to harmonise common criteria and procedures in EU, the session will particularly focus on the approaches used in different EU countries and bodies (e.g. European Chicken Commitment, ECC) to characterize and assess slow-growing and dual-purpose genotypes. In this view, not only performance traits, but also the assessment of functional traits in challenging conditions, such as adaption to outdoor environment, immune response to pathogens, thermoregulation, locomotion activity, and land use etc. need to particularly be considered. Thus abstracts are welcome to address performance and functional traits of slow-growing and dual-purpose genotypes as well as discussions on the characterization and standardization of these genotypes.

EAAP offers 20 Scholarships to young animal scientists

On-line applications for EAAP Scholarships are open! EAAP is happy to provide the same number of scholarships offered last year: this means that up to 20 applicants will receive financial support to attend the next EAAP Annual Meeting in Florence!

Please remember that only applicants who have a maximum age of 38 years and are EAAP individual members can apply for a grant to attend the EAAP Annual Meeting. Applicants who have previously obtained a scholarship cannot reapply within 3 years. Please consider the following deadline: **1st March 2024** to send to the EAAP Secretariat in Rome (eleonora@eaap.org) the following information:

- Name, address, email and phone number, date of birth and short CV
- Name and address of the institution where the applicant works.
- The paper that the applicant intends to present, written in English. The paper should not exceed 5 pages including tables, figures and references. The contribution should be in line with the agenda of one of the provisional sessions.
- A copy of the original abstract submitted through the OMEGA system to the 75th EAAP Annual Meeting

The EAAP secretariat in Rome will inform the applicants of the result of the examination of their application by the Board of Examiners by the end of April when the successful applicants will receive information on the conditions and uses of the lump sum in line with the Scholarship Fund. The unsuccessful applicants will also be notified about the outcome of their submissions. Failure to obtain a scholarship does not mean the automatic removal of the abstract from the conference program.

Please remember that the EAAP individual membership is mandatory to obtain the Scholarship!

EAAP People Portrait

Maria-Anastasia Karatzia



Maria-Anastasia Karatzia grew up in Thessaloniki, the second largest city of Greece, situated at a plain, surrounded with animal farming activity. Following family tradition Maria was always in contact with farm animals, especially cattle and small ruminants and a loving dog and canary owner. Having started studying mathematics at the Aristotle University of Thessaloniki, a twist of luck led her to the School of Agriculture, where she graduated from with a specialization in Animal Science. Afterwards, she completed a Master's degree course in Animal Science as well, and in 2010 she defended her thesis entitled "The effect of clinoptilolite supplementation in dairy cows' diets in the prevention of subacute ruminal acidosis" at the School of Veterinary Medicine, at the Aristotle University of Thessaloniki. Following that, she completed two post-doctoral courses, on the effects of housing system on dairy cows' welfare and on the effects of spirulina supplementation in dairy cows' diets on the alleviation of heat stress and milk quality. All the while working as an adjunct lecturer, Maria enjoyed introducing students to animal husbandry, welfare and behaviour of farm animals. [Read the complete profile here.](#)

Science and Innovation

The coexistence of wildlife and livestock

The article investigates into the nuanced relationship between livestock and wildlife, emphasizing that the environmental impact of livestock depends on various factors such as region, timeframe, stocking rate, and farming system. The coexistence of wildlife and livestock presents both conflicts and opportunities, with grazing practices influencing habitat diversity and water bodies.

However, woodland expansion can negatively affect livestock farming by reducing pasture availability and increasing wild ungulate populations. Wildlife-livestock conflicts arise from shared infections, competition for resources, and the presence of large predators. To address these conflicts, the text suggests interventions such as zoning and land use planning, diversifying community livelihoods, lifting wildlife harvest restrictions, implementing damage compensation and pasture fencing schemes, deploying biosafety measures, and manipulating livestock and wild herbivore populations through targeted farming and hunting. The human factor is crucial in mitigating conflicts, and the interests of relevant sectors must be considered. The conclusion stresses the importance of wildlife-livestock coexistence to address global concerns related to food security, biodiversity, and diseases. The text calls for urgent and transdisciplinary research to navigate this complex field and find strategies that maximize both food safety and ecosystem services while minimizing potential adverse effects. [Read the full article on Animal Frontiers.](#)



Unequal impact of climate warming on meat yields of global cattle farming

This article explores the impact of anthropogenic climate warming on global cattle meat yield, considering its potential contribution to the inequality of regional development worldwide. The research indicates that warmer temperatures adversely affect livestock productivity, particularly in grassland-based systems, as evident from reduced cattle meat yield at temperatures exceeding 7°C. This decline poses challenges to the livelihoods of the 400 million people globally dependent on livestock products, which contribute over 10% and 30% to per capita calorie and protein supply, respectively. The study uses Food and Agricultural Organization (FAO) statistical data, combined with socioeconomic information and climate projections, to reveal that warming's influence on cattle meat yield varies across countries. Notably, high-income countries experience less impact than low-income counterparts due to divergent baseline temperature conditions. The findings underscore the urgent need to understand and adapt to the repercussions of climate warming on livestock production. Furthermore, the research highlights the inequality exacerbated by climate change, as poorer and warmer nations bear greater climate-associated burdens without the means for effective adaptation. The unequal impacts are projected to intensify in future warming scenarios, emphasizing the critical role of addressing climate change adaptation strategies on a global scale. [Read the full article on Nature.](#)

Feeding predictability as a cognitive enrichment protects brain function and physiological status in rainbow trout: a multidisciplinary approach to assess fish welfare

The paper explores the potential of cognitive enrichment, specifically feeding predictability, as a strategy to enhance the welfare of farmed rainbow trout. The research builds on a prior study that revealed rainbow trout's ability to predict daily feedings after conditioning with both temporal and signalled predictability. The current investigation compares the long-term effects of this predictability (BUBBLE + TIME treatment) with an unpredictable feeding condition (RANDOM treatment) on various welfare indicators in rainbow trout. After almost three months, the study demonstrates that the BUBBLE + TIME treatment leads to improved welfare in rainbow trout. Fish under this cognitive enrichment strategy displayed food anticipatory activity, fewer aggressive behaviours, reduced activity between meals, and decreased expression of transcripts related to the dopaminergic system. Additionally, these fish showed fewer instances of eroded dorsal fins and infections, suggesting a positive impact on health status. The study also indicates that the RANDOM treatment may have induced chronic stress in fish. Despite similar emotional reactivity and physical parameters between the two treatments, the results suggest that combining signalled and temporal predictability in feeding could serve as a promising cognitive enrichment approach to protect the brain function and physiological status of farmed rainbow trout in the long term. [Read the full article on Animal.](#)

Application of machine learning algorithms to predict dead on arrival of broiler chickens raised without antibiotic program

The paper investigates the factors contributing to the high incidence of Dead on Arrival (DOA) in broiler production, a crucial concern for both profitability and animal welfare. DOA refers to broilers that die during catching, transportation, and slaughter. Various factors influence DOA, such as rearing practices, transportation conditions, and environmental variables. Thailand, a major player in broiler production, faces the challenge of meeting international export standards, including antibiotic-free rearing practices. This shift poses potential risks, making DOA a significant indicator of broiler productivity. The study employs machine learning (ML) techniques, including LASSO, CT, and RF, to predict and classify DOA based on a dataset from a Thai broiler producer. Four sampling techniques are used to address data imbalance. The research focuses on a DOA range of 0.10 to 1.20%, with a threshold for high DOA set above 0.3%. Results show that RF outperforms other models in a balanced dataset, with random under sampling significantly improving prediction performance. The study identifies key variables—mortality and culling rate, rearing stocking density, season, and mean body weight—as crucial for predicting high DOA percentages. Overall, this ML approach provides valuable insights and contributes to developing effective strategies to mitigate high DOA percentages in commercial broiler production. [Read the full article on Poultry Science.](#)





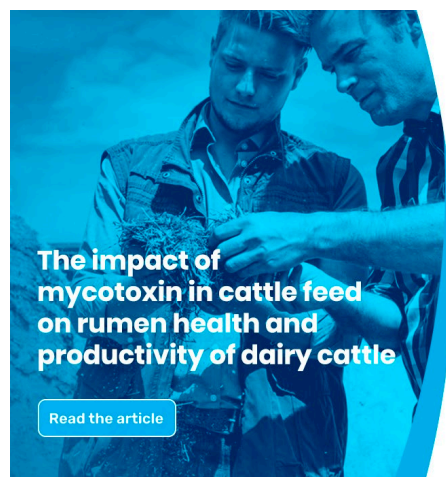
Job Offers

Technical Ruminant Account Manager at Trouw Nutrition, Belfast, Northern Ireland

[Trouw Nutrition](#) is looking for a full time Technical Ruminant Account Manager. A Bachelor or Master's degree in Agricultural Science/Animal Nutrition is required. For more details and application [read the job vacancy](#).

Industries

The impact of mycotoxin in cattle feed on rumen health and productivity of dairy cattle



Molds produce mycotoxins as a defence mechanism, with direct and indirect impacts on dairy health and milk production. Professor Gallo from the University of Piacenza discussed these insights at the 2023 EAAP Congress in Lyon, emphasizing the impact of mycotoxins in dairy feed.

The transfer of Aflatoxin B1 to Aflatoxin M1 in dairy cows poses health risks, with Aflatoxin M1 being carcinogenic and regulated at lower levels in the EU compared to the

US. Aflatoxin B1, known for causing rumen function reduction and mastitis, was found to significantly impact rumen fermentation in a recent trial. Even at levels below EU limits, Aflatoxin M1 in milk exceeded regulatory thresholds. However, Selko Toxo MX demonstrated a substantial reduction in Aflatoxin B1 in feed transfer to Aflatoxin M1 in milk and also significantly improving feed efficiency measured as milk production per kg of dry matter ingested.

Professor Gallo also presented the significant issue of mycotoxin contamination in silages and its adverse effects on dairy and beef cattle. [Read the full article here](#).

SkimSeek™ Sequencing

Neogen's SkimSeek technology combines low pass sequencing and imputation, making it a significant advancement in genomic selection and genotyping for research purposes. It provides highly accurate SNP variant calls and whole genome sequence data, allowing you to go deeper into a variety of genomes.

- Low pass WGS and imputation thereafter is available for Bovine, Porcine, and Canine

- Deliverables: FASTQ files, imputed variant call format files (VCF) and BAM files.

Offering a viable approach to obtain functional variant genotypes that could improve genomic prediction, SkimSeek allows for a reduced dependence on linkage disequilibrium between 50K fixed chips and Quantitative Trait Loci (QTL) that are impacting the desired phenotypes. It provides complete genotyping of entire breeding populations, which reduces bias in genetic evaluations due to selective genotyping, whilst the data report contains millions of SNP variants to improve



genomic selection or help discover novel, population-specific causative variants.

InfiniSeek™ Sequencing

InfiniSeek is an innovative solution that combines low pass, whole genome sequencing and targeted SNP analysis. It provides the bovine industry with a revolutionary, cost-effective solution that can deliver increased genomic insights to help advance cattle breeding programs worldwide.

- Combination of low pass sequencing and imputation, and hybrid capture for causative and parentage markers-available for Bovine

- Deliverables: FASTQ files, VCF files, parentage, Illumina final reports compatible with various commercial arrays and panels of causatives and recessives.

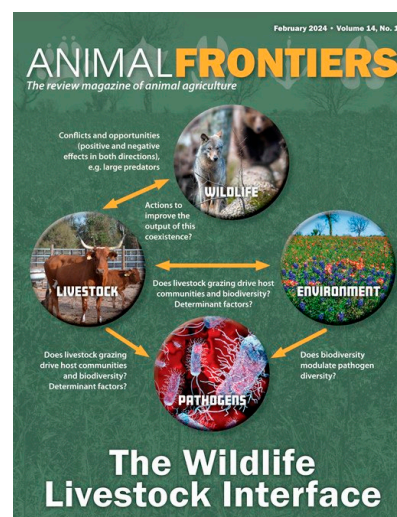
With InfiniSeek, you can maximise your breeding prediction and value with insight into desired phenotypes with genome-wide sequence data, genetic traits, and parentage markers. It allows for compatibility with historical genotype datasets and breeding programs by imputing to all known Bovine genotyping arrays (Neogen can also make Illumina Bovine HD and GGP Bovine 100K subsets available as final report files). What's more, InfiniSeek reliably reports parentage SNPs and subsets of health and performance trait markers for each sample. For more information, contact: hhofenederbarclay@neogen.com

Uncover new possibilities with Neogen Genomics. Make sure to subscribe [to their email list](#) to stay updated with the latest news.

Publications

• Oxford Academic

[Animal Frontiers: Volume 14, Issue 1, February 2024](#)



• Elsevier

Journal of Proteomics: [“Meat Omics: trends and applications”](#), Volume 293 – February 2024

Animal Science Podcasts

Pig Progress, Meet the Expert Podcast: [Lawsonia and the microbiome](#), speaker Prof Dr Christian Visscher






EAAP
European Federation
of Animal Science

EAAP Regional Meeting 2024

2nd EAAP Regional Meeting - Mediterranean Region

24th - 26th April 2024, Nicosia, Cyprus

[Register here](#)

[Submit your abstract](#)

Other News

From a family of animal journals to a family of organizations

The animal family of journals (i.e. animal, animal – open space, and animal – science proceedings) is jointly owned by a Consortium composed of the EAAP, BSAS, and INRAE and published by Elsevier on behalf of the Consortium. To widen and strengthen the scientific basis of the family of journals, the Consortium is delighted and honoured to announce that IRTA has become an associated party of the Consortium. Together, the four organizations will determine the scientific policy of the journals in a rapidly changing landscape of scientific publishing. IRTA, the Institute of Agrifood and Technology Research under the Regional Government of Catalonia, is dedicated to promoting research and technological development in agri-food, including animal science. IRTA scientists frequently contribute by publishing in “animal” and actively participating in the editorial team. The IRTA team has decided to support the scientific direction of the journals and showcase their partnership in animal science publishing. Maria Font i Furnols, an animal science researcher at IRTA and the current deputy editor-in-chief of “animal,” played a crucial role in facilitating these activities within the new partnership. The “Animal Consortium” is delighted to announce IRTA as the first organization to engage in this innovative relationship with the “Animal Consortium”. The Consortium plans to establish similar partnerships with other research organizations in the field of animal science.

Exploring Excellence: The Evolution and Features of the Polish Society of Animal Production’s Journal “Animal Science and Genetics”

The Polish Society of Animal Production, established in 1922, has been publishing a scientific journal since 2005, titled “Animal Science and Genetics,” (formerly known

as the “Scientific Annals of the Polish Society of Animal Production”). The new “Animal Science and Genetics” operates as an open-access journal, accessible to all readers. The journal’s scope encompasses various fields within animal sciences and fisheries. Manuscripts are accepted for submission in 11 different sections, covering a wide range of animal science disciplines. Only original scientific and review manuscripts are considered for submission. All papers undergo a rigorous double-blind peer review process, with two independent reviewers evaluating each submission. Currently, the publication fee stands at \$ 250, and as of the end of 2023, the journal is indexed by SCOPUS. There are aspirations for obtaining an Impact Factor in the near future. For more information about “Animal Science and Genetics,” please visit [the publication’s website](#).

FRAME Training School!

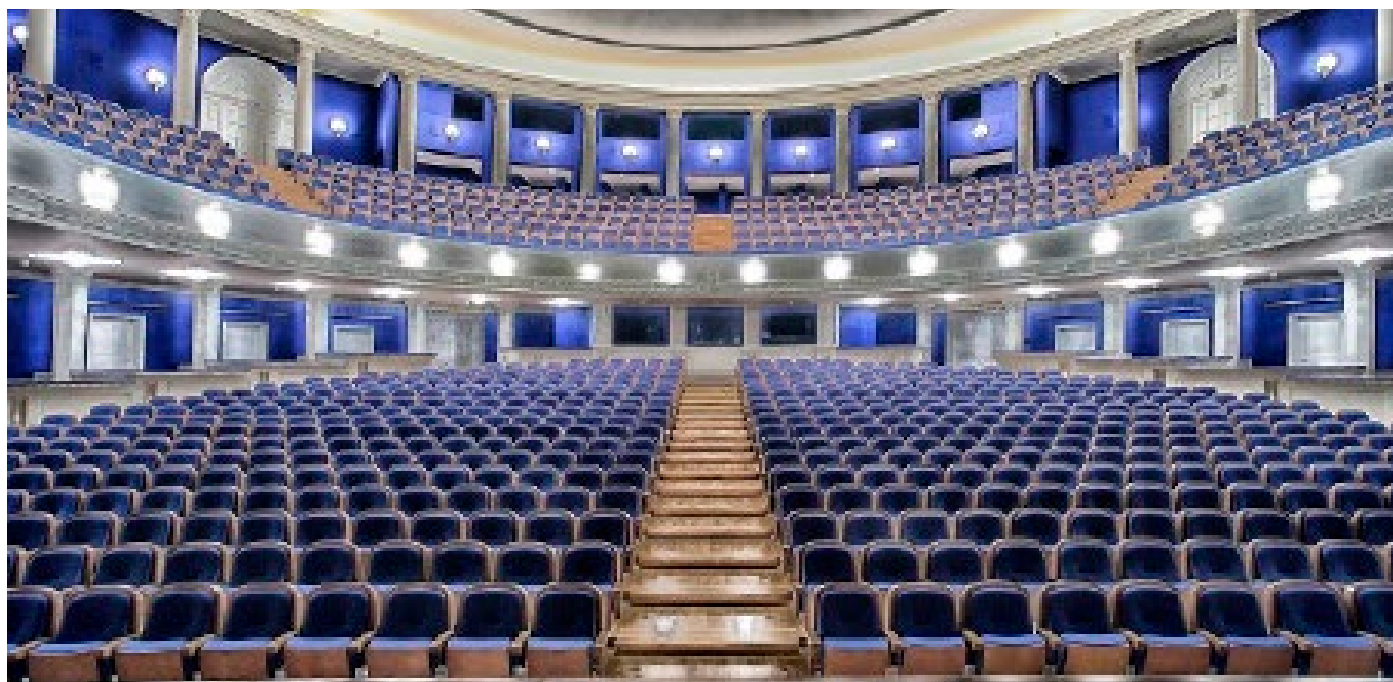
UoN/FRAME Training School in Experimental Design and Statistical Analysis of Biomedical and Bioscience Experiments, will be held in the historic city of Nottingham, from 17 to 19 April 2024. The registration is open and includes participation, access to expert tutors and course materials, as well as accommodation, travel between venue and hotel, coffee breaks, lunches and evening meals during the course. A non-residential rate is also available for local residents. Direct engagement with the tutors and group activities are core components of the Training School, so to facilitate interaction and encourage participants to actively engage with the content places are limited. [Register here!](#) The course is accredited by FELASA and is eligible for 10 LASA UK CPD points. This is the 17th collaborative Training School which is aimed at postgraduate level or above. The programme is structured to lead participants from simple experimental design and statistical ideas, through more complex methods and analysis to effective presentation of findings. For further information including a draft programme please [visit the webpage](#).

Conferences & Workshops

EAAP invites you to check the validity of the dates for every single event **published below and in the Calendar of the website**, due to the state of sanitary emergency that World is currently dealing with.

Event	Date	Location	Information
BSAS Belfast 2024	4 – 11 April 2024	Belfast, Northern Ireland	Website
2 nd EAAP Regional Meeting	24 – 26 April 2024	Nicosia, Cyprus	Website
46 th Discover Conference	4 – 6 May 2024	Itasca, Illinois, USA	Website
3 rd EAAP Mountain Livestock Farming Systems Meeting	5 -7 June 2024	Clermont-Ferrand, France	Website
ADSA 2024 Annual Meeting	16 – 19 June 2024	Florida, USA	Website
Joint AAAP & AAAS Animal Production Congress	8 – 12 July 2024	Melbourne, Australia	Website
2024 ASAS ASAS/CSAS/WSA-SAS Annual Meeting	21 – 25 July 2024	Calgary, Canada	Website
International Symposium on Ruminant Physiology (ISRP)	26 – 29 August 2024	Chicago, Illinois, USA	Website
BOLFA & ICFAE meeting	28 -30 August 2024	Bern, Switzerland	Website
9 th International Conference on the Welfare of Animals at Farm Level (WAFL)	30 – 31 August 2024	Florence, Italy	Website
75 th EAAP Annual Meeting	1 – 5 September 2024	Florence, Italy	Website

More conferences and workshops [are available on EAAP website](#).



“Those who cannot change their minds cannot change anything”

(George Bernard Shaw)

Become EAAP Members is easy!

Become EAAP individual member to receive the EAAP newsletter and discover the many other benefits!

Please also remember that individual membership is for free for residents in EAAP countries.

[Click here to check and register!](#)

Opportunities to advertise your company through the EAAP Newsletter in 2024!

Presently, the English version of the Newsletter reaches nearly 6000 animal scientists, boasting an average of certified readers ranging from 2200 to 2500 per issue. EAAP gives to industries a great opportunity to increase visibility and create a wider network!

[Learn more about the special opportunities here.](#)

The **Flash-e-News** is the Official EAAP Newsletter. This interesting update about activities of the European animal science community, presents information on leading research institutions in Europe and also informs on developments in the industry sector related to animal science and production. The Newsletter is sent to all EAAP Members and supporters. You are all invited to submit information for the newsletter. Please send information, news, text, photos and logo to: marlene@eaap.org.

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Address Corrections: If your email address is going to be changed please send us the new one, so that we can continue to deliver the Newsletter to you.