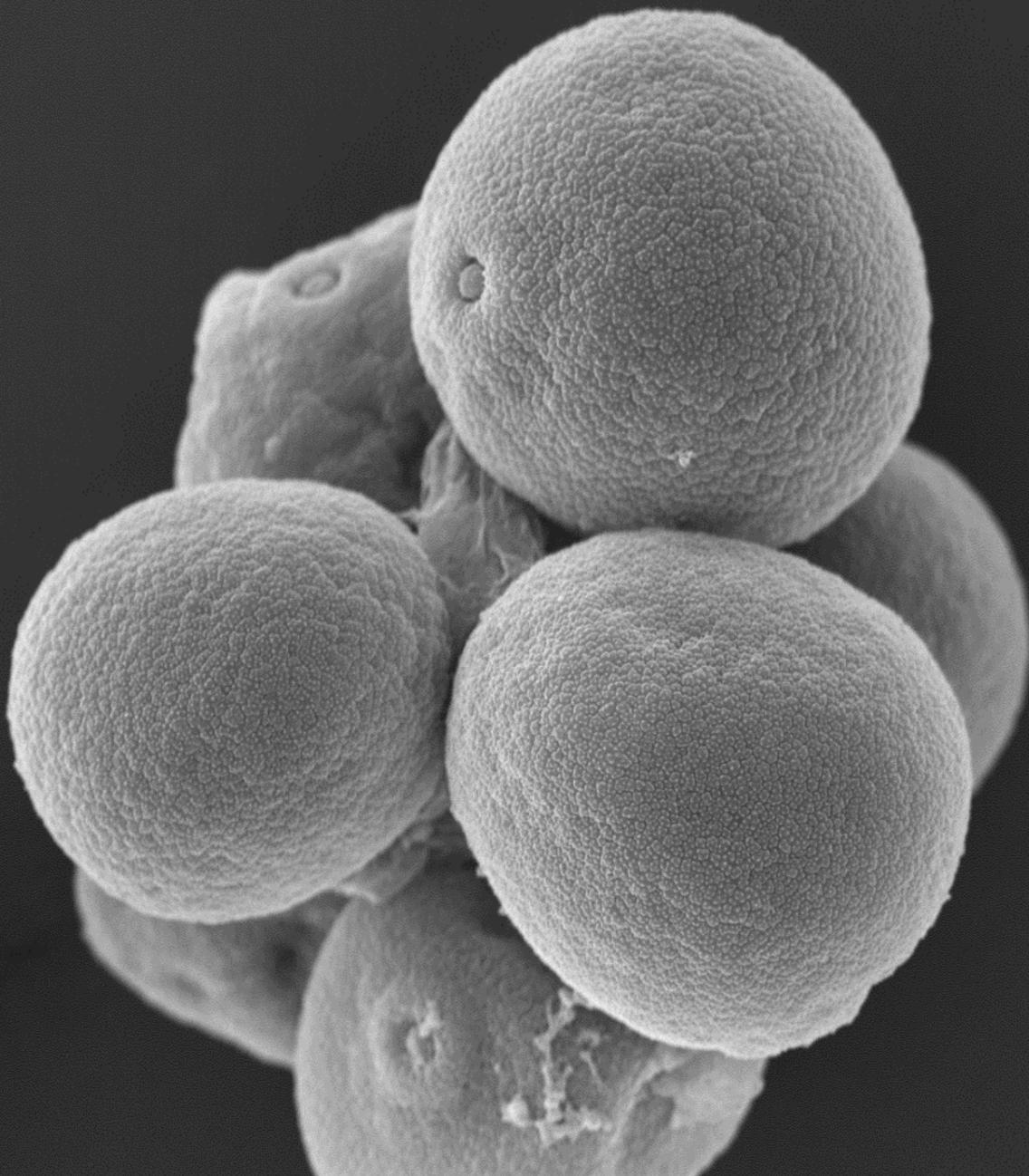


International Aerobiology Newsletter



August 2024, Vol. 95



Poaceae pollen cluster with electron microscope (ZAUME, Zentrum für Allergie und Umwelt)

Message from the IAA President



Dear IAA members and colleagues,

This is my first Newsletter message as IAA President, and I wanted to start by thanking our now IAA Past President, Dorota Myszkowska, for her long and excellent service as IAA President (2018-2024). I also wanted to thank Ingrida Šaulienė for her outstanding organisation of our recent 12th International Congress on Aerobiology (12th ICA) as part of World Aerobiology 2024 in Vilnius, Lithuania. The successful organisation of an international conference of course requires a large team, and the members of the Local Organizing Committee, International Organizing Committee, and international Scientific Committee that worked closely with Ingrida are also to be congratulated and thanked.



Dorota Myszkowska handing over the IAA Presidency (and the thinking frog) to Paul Beggs during the World Aerobiology 2024 'Awards and Closing' session.

World Aerobiology 2024 in Vilnius was a special event for many reasons. It was a showcase of the exceptional research being done by aerobiologists all around the world. The quality of the oral and poster presentations was of the highest standard. I was particularly impressed with the students and early career researchers who presented at the conference. Aerobiology has an exciting future and it is clear that the next generation of aerobiological researchers is ready to ride this wave. World Aerobiology 2024 was also a wonderful demonstration of what we can achieve through collaboration, not only as individuals coming together but also amongst associations and societies in the field of aerobiology, with the event itself being a joint meeting of the 8th European Symposium on Aerobiology, 5th International Ragweed Conference, and the 12th ICA. And finally, it was marvellous to see so many IAA colleagues and friends and to meet new ones – all in beautiful Vilnius.



Gediminas' Castle Tower in Vilnius (photo P. Beggs).

I look forward to working with the other members of the new IAA Executive Committee and IAA Council to advance aerobiology internationally. The Executive Committee is already hard at work on several important developments for the Association. We look forward to bringing these to the current membership as well as the new members that will join our thriving community. And speaking of IAA members, I am delighted to announce that Bernard Clot and Jordina Belmonte have been elected Honorary Members of the IAA, for their outstanding contributions to aerobiology and to the aims of the Association.

While the many members of the IAA community will remain connected in various ways over the coming years, our sights are already set in particular on the next International Congress on Aerobiology (the 13th) to be held in Kolkata, India, at the end of 2026. We will provide further details both in the Newsletter and on the IAA website as they become available. I look forward to seeing you there.

Kind regards,

Paul Beggs, IAA President

Message from the IAA Past-President



Dear Colleagues, Aerobiologists,

Let me say some words as a former President of the longest term of office of the Executive Committee of the International Association for Aerobiology. Within six years, I was in touch with you by the IAA Newsletter, IAA website, FB profile, emails, and direct face-to-face contacts. I am proud that you care about the development of aerobiology as a scientific discipline, that you carry out more and more interesting and advanced research and plan new projects. Most of them are the interdisciplinary, multicentre studies. I am full of appreciation for your willingness to cooperate with the other, aerobiological teams, what is often emphasized by colleagues from other fields of science.

I had a pleasure to meet most of you in Vilnius where participants from almost all continents came to enjoy the fantastic scientific and social event, the "World Aerobiology – 2024". This congress was full of emotions and good energy, which could be felt in the conversations, greetings, hugs. We do really create a very valuable team, not only of scientists, but also of friends. Let's keep it up!

Aerobiology as a discipline evaluates all the time, in the last years a huge progress in the methodology has been observed. New colleagues representing related scientific fields join the aerobiological team, expanding the scope of research with new, interesting topics. I would like to congratulate all of you new ideas, new scientific challenges, regardless of whether it is a sophisticated modelling or the basic, microscopic recognition and counting the pollen grains and fungal spores.

I wish all the best for the new IAA Executive Committee and see you as soon as possible during the coming aerobiological meetings:)

Dorota Myszkowska, IAA Past-President 2024-2026

IAA General Assembly

Minutes from the General Assembly of INTERNATIONAL ASSOCIATION FOR AEROBIOLOGY

Minutes IAA General Assembly
Tuesday 2nd July 2024, 19:00-20:30 UTC+3
World Aerobiology 2024 congress, Alfa room (2nd floor)



- I. Dorota Myszkowska (IAA President) opened the meeting.
- I. The IAA was founded on 11th September 1974, in the Hague the Netherlands. This year, we are therefore celebrating 50 years of the IAA. To commemorate this, the IAA Executive Committee awarded 8 grants of 1000 euros to attend World Aerobiology 2024.
- II. Minutes from the previous General Assembly in 2018 were agreed (published in the IAA Newsletter, Vol. 84, January 2019).
- III. Officer Reports
 - a. President (Dorota Myszkowska)
 - b. Vice-President (Paul Beggs)
 - c. Treasurer (Matt Smith on behalf of Javier Rodriguez-Rajo)
 - d. Secretary General (Matt Smith)
 - e. Newsletter Editor (Lukasz Grewling)
 - f. Webmaster (Olga Sozinova)
 - g. Young Aerobiologists (Olga Sozinova)
- IV. The possibility of a position for a Young Aerobiologist to be included in the Executive Committee, and added to the Statutes, was discussed and agreed by the General Assembly (Action Olga Sozinova).
- V. Bernard Clot presented Presidency University, Kolkata as the next host of the 13th International Congress in Aerobiology in 2026.
- VI. Future IAA courses were discussed, and it was suggested that one possibility would be in conjunction with AutoPollen (Bernard Clot) but other proposals on any topic would be considered.
- VII. The following have been nominated for the next IAA Executive Committee (2024-26) and will be presented to the General Assembly during World Aerobiology 2024:
 - a. President Paul Beggs
 - b. Vice President Matt Smith
 - c. Treasurer Benoît Crouzy
 - d. Secretary General Łukasz Grewling
 - e. Newsletter Editor José Oteros
 - f. Webmaster Susanne Jochner-Oette
 - g. Chair of Congress Organising Committee Kashinath Bhattacharya (Secretary Gaurab Sircar)

IAA General Assembly

- VIII. Dorota Myszkowska will become the new Past President and was warmly thanked for her leadership during the last 6-years by other member of the Executive Committee.
- IX. The following nominees were presented to the IAA General Assembly as Council at-large Members (2024-26). Their nominations were accepted:
- a. Roberto Albertini
 - b. Maureen Sabit
 - c. Maira Bonini
- X. Nominations for the next auditors (2024-26) were presented and agreed:
- a. Carmen Calderon
 - b. Ingrida Šaulienė
- VIII. Maira Bonini was accepted as the new Councillor to International Federation of Palynological Societies (IFPS)
- IX. A short report about *Aerobiologia*, the official journal of the International Association for Aerobiology, was presented by Carmen Galan. In summary: Impact Factor of *Aerobiologia* (2023): 2.2 – a slight increase from last year (2.0). CiteScore (2023): 4.5. Category Rank Position: Q2 in Biology (previously Q3); Q3 in Environmental Sciences (previously Q4). Median times (2024) First decision - 22 days; Submission to accept - 176 days; Accept to publication - 24 days. Citable items in 2022 and 2021: 98 (2023). It was noted that the recent Special Issue entitled “*Towards a European Automatic Pollen Monitoring Network - EUMETNET AutoPollen Programme*” had been an effective tool for increasing the journals reach and impact. A new Special Issue on the “*Effects of Pollution on Pollen*” is currently ongoing.
- X. New Honorary Members for those who have made outstanding contributions to aerobiology or to the aims of The Association were agreed:
- a. Jordina Belmonte Soler, Universitat Autònoma de Barcelona
 - b. Bernard Clot, Federal Office for Meteorology and Climatology MeteoSwiss
- XI. The IAA Best Research Paper Award was given to Marie Choël for the study entitled “*Atmospheric particulate matter deposition on birch catkins and pollen grains before pollination*” Choël, M., Visez, N., Secordel, X. and Deboudt, K. (2022) Atmospheric particulate matter deposition on birch catkins and pollen grains before pollination. *Aerobiologia*, 38(2), pp.151-162.

Dr Matt Smith
Secretary General IAA (2018-2024)

Keep in touch with Aerobiologia journal



The latest issue of the journal *Aerobiologia* (Volume 40, Issue 2) features 12 articles that explore a wide range of topics in the field of aerobiology. Highlights include an examination of the influence of meteorological variables on COVID-19 spread in Malaysia, the development of allergenic pollen seasons and regional pollen calendars for Norway, and an analysis of metagenomes from wet deposition samples in the Western USA. Other studies assess trends in airborne grass pollen in Portugal, bioaerosol exposure in aquaculture workers in Korea, and the health risks associated with fungal bioaerosols near a sugar mill in India. The issue also includes research on the impact of climatic factors on dengue fever in Bangladesh, spatial analysis of COVID-19 risk factors, and uncertainty in birch pollen modeling. Additionally, brief reports examine spatial variation in airborne bacterial heterogeneity between Korea and Japan, and the presence of culturable bacteria in clouds over Réunion Island.

Waters, S.M., Verma, S., Cai, N. et al. Long-read sequencing of metagenomes from wet deposition samples in the Western USA during an elevated precipitation in February 2019. *Aerobiologia* 40, 161–173 (2024). <https://doi.org/10.1007/s10453-024-09807-z>

Aerobiologia is an official journal of the International Association for Aerobiology (IAA). It is an international medium for original research and review articles in the fields of aerobiology and interaction of human, plant and animal systems on the biosphere.

2.2 IF JCR (Q2 in BIOLOGY)

0.57 SJR (Q3 in Plant Science)

link.springer.com/journal/10453

Caeiro, E.R.G., Camacho, R.A.P., Ferreira, M.B. et al. Trends in airborne grass pollen in Évora City (Portugal). *Aerobiologia* 40, 175–189 (2024). <https://doi.org/10.1007/s10453-024-09808-y>

Frisk, C.A., Brobakk, T.E. & Ramfjord, H. Allergenic pollen seasons and regional pollen calendars for Norway. *Aerobiologia* 40, 145–159 (2024). <https://doi.org/10.1007/s10453-023-09806-6>

Seki, M., Tanaka, H., Yonemochi, S. et al. Spatial variation of airborne bacterial heterogeneity and potential opportunistic human pathogens: a comparative study of sites in Korea and Japan. *Aerobiologia* 40, 287–295 (2024). <https://doi.org/10.1007/s10453-024-09817-x>

Special Issue on Automatic Pollen Monitoring Network - EUMETNET AutoPollen Programme: Volume 40, Issue 1 of *Aerobiologia*

The March 2024 issue of *Aerobiologia* (Volume 40, Issue 1) is a special edition dedicated to the advancements and developments within the EUMETNET AutoPollen Programme, a groundbreaking initiative aimed at establishing a prototype automatic pollen monitoring network across Europe. This special issue, edited by Fiona Tummon and Bernard Clot, features nine in-depth articles that collectively represent the current state of research and technological innovation in the field of automatic pollen and fungal spore monitoring.

The issue opens with an editorial by Tummon and Clot, setting the stage for the significance of the AutoPollen Programme and the collaborative efforts that have driven this ambitious project. They highlight the critical need for standardized, real-time pollen monitoring systems to improve the accuracy and reliability of pollen data across Europe. This initiative is seen as a major step forward in supporting public health, particularly for individuals with pollen allergies, and in enhancing environmental monitoring.

Key contributions in this issue include an overview of the EUMETNET AutoPollen programme by Clot et al., which outlines the establishment of a prototype network and its implications for European aerobiology. Additionally, Buters et al., provide a comprehensive review of the current technologies in automatic pollen detection, emphasizing the challenges and opportunities in this rapidly evolving field.

Buters, J., Clot, B., Galán, C. et al. Automatic detection of airborne pollen: an overview. *Aerobiologia* 40, 13–37 (2024).
<https://doi.org/10.1007/s10453-022-09750-x>

The article by Tummon et al., discusses best practices and guidelines for standardizing automatic pollen and fungal spore monitoring, which is essential for ensuring consistency and comparability across different regions and platforms. Further notable contributions include an analysis by Tummon et al., on the role of automatic monitoring in various end-user domains, such as public health and agriculture. Adamov et al., delve into the measurement uncertainties associated with traditional Hirst-type volumetric samplers, providing valuable insights into improving data accuracy. Additionally, the issue features an evaluation of multiple automatic pollen monitors operating in parallel, conducted by Tummon, et al., which offers critical findings on the reliability and performance of these systems. The special issue also explores the application of computer vision models in pollen classification through light scattering techniques, as demonstrated by Daunys et al., and examines the real-time monitoring of fungal spores, with a focus on *Alternaria* spp., presented by Erb, et al.



Alternaria spores (from Erb et al., 2024)

Tummon, F., Adamov, S., Clot, B. et al. A first evaluation of multiple automatic pollen monitors run in parallel. *Aerobiologia* 40, 93–108 (2024).
<https://doi.org/10.1007/s10453-021-09729-0>



Keep in touch with Grana journal

The latest volume of GRANA (Volume 63, Issues 1 and 2) presents a diverse collection of articles that explore various aspects of palynology and aerobiology. This issue marks a significant change as David Cantrill steps in as the new Editor-in-Chief. Key research topics include evidence of saprotrophic digestion of *Glossopterid* pollen in Permian silicified peats from Antarctica, pollen variability in *Dioscorea* species, and the micromorphology and ultrastructure of *Tulipa* species. Other notable studies include an analysis of the sensitization profile to pollen allergens in Filipino communities, and contributions to the European Pollen Database, with reports on sites in Germany, Greenland, Russia, and Scotland. Additionally, the issue explores melissopalynological insights on honey uniflorality and the botanical composition of pollen collected by *Apis mellifera* in northwest Türkiye. This issue continues to contribute valuable knowledge to the fields of palynology and aerobiology.

Hernando Bartolome, Á., Berjano, R., Moujanni, A., Benjamaa, R., Essamadi, A. K., & Terrab, A. (2024). Melissopalynological knowledge regarding the uniflorality of honeys: the case of under-represented pollen. *Grana*, 63(2), 160–171.
<https://doi.org/10.1080/00173134.2024.2329577>

Grana is published in affiliation with the International Association for Aerobiology (IAA), it is the oldest specialized journal on Aerobiology and Palynology, continuously publishing high quality articles from 1954.

0.9 IF JCR (Q4 in PLANT SCIENCES)

0.36 SJR (Q3 in Plant Science)

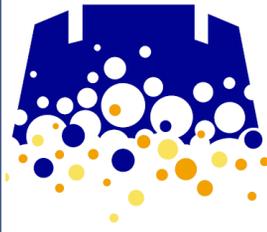
<https://www.tandfonline.com/journals/sgra20>

Punay, J., Lucas, Ma. F., Arpon, I. M., Jalbuena, Q., Albano, P. M., & Sabit, M. (2024). Sensitisation profile to pollen allergens of selected grass and tree species in Filipino communities. *Grana*, 63(1), 52–66.
<https://doi.org/10.1080/00173134.2024.2316045>



Bee (photo Gary Yost)

Conferences: Reports



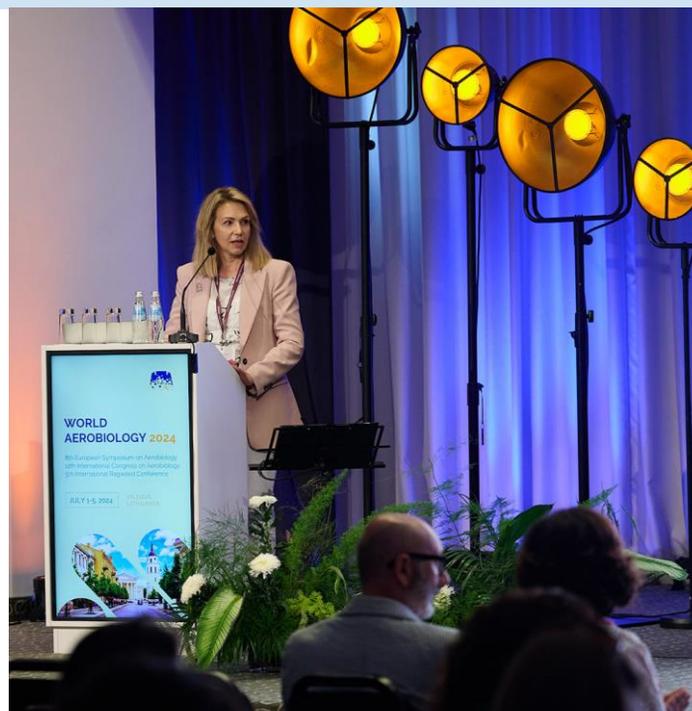
**WORLD
AEROBIOLOGY
2024 • Vilnius**

World Aerobiology 2024: Advancing Global Insights and Collaboration in Aerobiology



The much-anticipated "World Aerobiology 2024" meeting was held in Vilnius from 1-5 July 2024 (<https://www.aerobiology2024.com>). This prestigious event brought together three major symposia: the 8th European Symposium on Aerobiology, the 12th International Congress on Aerobiology, and the 5th International Ragweed Conference. The gathering attracted 202 experts from 31 countries, serving as a global platform for scientists and researchers to present and discuss the latest advancements in aerobiology.

The meeting program was comprehensive, covering a wide array of topics related to airborne biological particles and their implications for human health, ecosystems, and climate change. With 250 oral and poster presentations, the meeting facilitated exchange of innovative research findings and fostered discussions on emerging challenges in the understanding of bioaerosols behaviour. Participants had the opportunity to engage in open workshops focusing on international aerobiology projects such as AutoPollen (<https://autopollen.net>), Sylva (<https://sylva.bioaerosol.eu>), EO4EU (<https://www.eo4eu.eu>), Adopt (<https://adopt-bioaerosol.eu>), and others. These workshops provided valuable insights into the practical implementation of cutting-edge ideas, underscoring the importance of collaborative efforts in advancing the research on bioaerosol.





The event featured an engaging integration of artificial intelligence, which actively participated in the discussions by listening to the presenters and posing insightful questions. During the breaks, AI-generated songs were played, with lyrics thoughtfully crafted from the content of the presentations, adding a unique and creative dimension to the conference experience.



An exhibition area featured prominent companies in the aerobiology sector, showcasing the latest products, services, and innovations. Attendees engaged directly with representatives from Swisens, Helmut Hund, Pollen Sense, Agri Samplers, and Cytek®. The interactive seminar by Swisens was particularly noteworthy, offering mutual benefits: researchers gained a deeper understanding of the Poleno device and its potential applications, while the manufacturer received valuable feedback on consumer preferences.



"World Aerobiology 2024" also hosted meetings of the International Association for Aerobiology, the European Aerobiology Society, and the International Ragweed Society. These gatherings provided a platform for discussing past activities and future objectives, leading to the election of new committees and presidents. Paul Beggs was elected President of the International Association for Aerobiology, and Athanasios Damialis took on the role of President of the European Aerobiology Society. The esteemed title of Honorary Member was awarded to Bernard Clot (IAA), Giuseppe Frenguelli, Jordina Belmonte (IAA), and Letty de Weger in recognition of their significant contributions to the aerobiological community.



P. Beggs
IAA President



A. Damialis
EAS President

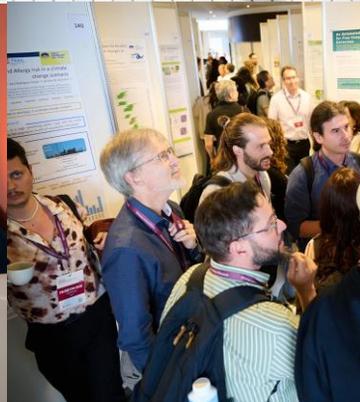


Auditorium during Carmen Galán's keynote about the history of Aerobiology

Social events, including a Welcome Reception and a Meeting Dinner, facilitated informal networking among participants. A guided tour of Vilnius Old Town, a UNESCO World Heritage site, provided attendees with insights into the city's rich history and its architectural significance in Eastern Europe.



The conference concluded with an awards ceremony recognizing outstanding contributions. The International Association for Aerobiology presented the Best Research Paper Award to Marie Choël for her study titled "Atmospheric Particulate Matter Deposition on Birch Catkins and Pollen Grains Before Pollination.". The European Aerobiology Society awarded also the best oral and poster presentations. The "Best Presentation on Fungal Spores" award, established by Donat Magyar, was given to Kacper Sobieraj for his research on spatiotemporal variations in fungal spore concentrations. Vilnius University, the event's host, announced the Best Student Oral Presentation Award, which went to Jürgen Gratzl for his work on real-time monitoring of fluorescent biological aerosols in the Finnish subarctic zone. Tagliaferro for her research on seasonal pollen trends in Northern Italy. The journal *Aerobiologia*, in collaboration with the World Aerobiology 2024 Scientific Committee, selected 10 presentations for special recognition, awarding the authors book vouchers from Springer (who publishes *Aerobiologia*). The recognized researchers include Barbora Werchan, Elena Abd El, Ana Galveias, Paulien Verscheure, Tetiana Vovk, András Biricz, Nemi Dorst, Jennie Spicker Schmidt, Ewa Przedpelska-Wasowicz, and Behzad Valipour Shokouhi for their outstanding contributions to the field.





"World Aerobiology 2024" has reaffirmed its critical role in advancing aerobiological research and addressing global challenges. Participants emphasized the need to not only continue research efforts but also to focus on applying findings to regulatory and policy-making contexts. Preparations are already underway for the next meetings, with the 2026 conference set to take place in Kolkata, India, and the 2028 event scheduled for Porto, Portugal.

The organisers of World Aerobiology 2024 extend their heartfelt gratitude to all attendees, whose participation and contributions made this event a resounding success. We also express our deepest appreciation to IAA, EAS, IRS boards and volunteers whose tireless efforts ensured the smooth execution of this conference. The commitment shown by participants to advancing aerobiology has been truly inspiring, and we look forward to fostering the collaborations and connections established here. We will work together to push the boundaries of knowledge on bioaerosols, driving forward solutions to the global challenges we face.

The Chair of the Organising Committee

Ingrida Šaulienė





Conferences: Reports

XX International Botanical Congress Madrid (July 15 to 19, 2024)



The International Congress of Botany, held in Madrid, marked the 20th edition of this prestigious event since its inception in 1900 in Paris. This MegaCongress spanned 7 days and attracted an impressive 2,998 registered botanists from around the globe. Among the attendees, Spain was well-represented with 631 participants, followed by 349 from the USA, 218 from China, 195 from the UK, 171 from Germany, 137 from Brazil, and 131 from Italy, making these the countries with the highest number of delegates. The congress featured an extensive program with a total of 1,608 oral presentations and 1,400 posters, covering a wide array of topics in Botany.

Organized by SEBOT, a confederation of six Spanish botanical societies. From these six societies, two societies have a strong focus on aerobiology: the Spanish Aerobiology Society (EAS) and the Association of Spanish Speaking Palynologists (APLE). The section dedicated to Aerobiology were enriched by keynote addresses from renowned experts in the field, including Giuseppe Frenguelli, Carmen Galán and Rosa Pérez-Badía, who discussed the latest research and developments in aerobiological studies. This congress not only highlighted the breadth of botanical science but also underscored the growing importance of aerobiology as a solid branch of Botany.



#IBC2024



IBC
2024

**XX International
Botanical
Congress
Madrid Spain**





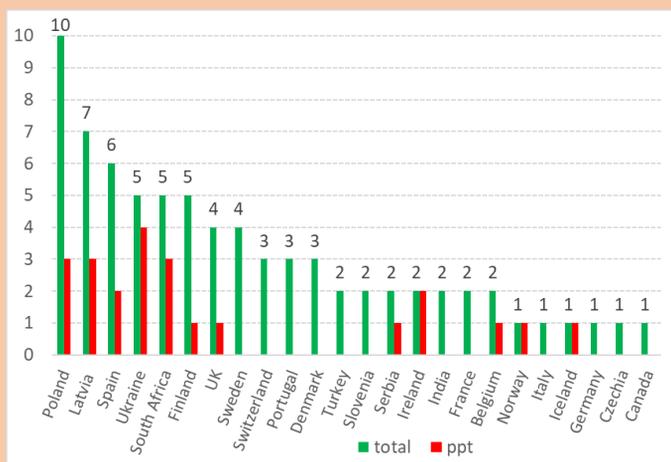
82nd International Scientific Conference of the University of Latvia 2024

Conferences: Reports

Traditional aerobiological annual conference at the end of January



The 4th year in the row, we experienced a friendly and welcoming atmosphere of special aerobiological session of the Annual International Scientific Conference of the University of Latvia in January 2024. The session was called: "The Challenges of Modern Aerobiology". The conference was organized online, thus allowing the participants from different continents discuss together all the important topics on aerobiological research. The 76 registered participants have covered Europe, Africa, Asia, North America presenting 24 different countries.



The keynote lecture on "Challenges of modern aerobiology" was provided by professor of Finnish Meteorological Institute, well-known scientist Dr. Mikhail Sofiev.

Twenty-three presentations covered the topics of ecology, phenology, real-time studies, variety of sensors, recognition specifics, allergenicity, sensitization, long- and short-term forecasting, fungal spore monitoring and diversity, etc.

We are happy to announce the next free of charge international conference in online (or hybrid on request) format the session of aerobiology this time is entitled "Interdisciplinarity of bioaerosol research" of the 83rd International Scientific Conference of University of Latvia and will be held 30.01.2025 to 31.01.2025. The second day depends on the number of participants and necessity to organize project meetings.



Olga Sozinova
University of Latvia

Please visit <https://conferences.lu.lv/event/583/> for the registration, abstract submission is open up to 15th January 2025.

* Let organizers know if you would like to have face-to-face meeting and special rooms for project meetings.



CONFERENCE
XV IPC-XI IOPC
PRAGUE 2024

Conferences: Reports

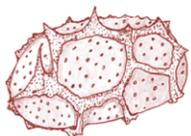
XV International Palynological Congress/XI International Organization of Palaeobotany Conference, Prague, May 27–31, 2024



Leading researchers in palynology and palaeobotany met after eight years for their joint meeting in the Clarion Conference Hotel in Prague. The event was attended by 521 participants from 46 countries presenting over 400 talks, and three workshops, one art session and six field trips were held. The main motto of the event was 200 years of palaeobotany, commemorating Caspar Maria Sternberg, who is also known as the "Father of Palaeobotany". Institute of Geology was significantly represented, with Jiří Bek acting as the President of the Congress and Jana Votočková Frojdová as its General Secretary.

The [XV International Palynological Congress](#) was a significant event that brought together experts from all fields of palynology. Although much of the congress focused on fossil pollen, it showcased the diversity and scope of the discipline by representing all areas of palynological research. Aerobiology presentations were under the category of "Palynology," which highlighted the relevance of some airborne pollen such as *Parietaria* and Poaceae. These presentations explored the relationships between pollen and phenology, and also delved into modern analytical methods.





**MedPalynos
2024**

Salamanca (Spain) 17-19 July

Mediterranean
Palynology
Symposium

Conferences: Reports



**VNIVERSIDAD
D SALAMANCA**

MedPalynos 2024
17-19 July in Salamanca (Spain)



The Medpalynos 2024 Congress, held from July 17th to 19th in Salamanca, Spain, was a significant event in the field of palynology on Mediterranean areas. The official congress of the national palynological societies of Italy, Spain and France, with also a great representativity from Portugal and other Mediterranean countries. The congress featured a diverse range of presentations, organized into thematic sessions covering topics from pollen biology to archaeopalynology and paleopalynology. The Aerobiology section was particularly prominent, with three specific sessions, including both oral sessions and poster communications. This section accounted for approximately 30% of the total presentations at the congress.

Melissopalynology and Paleopalynology were the other pillars of the congress. Key presentations in the Aerobiology section addressed intradiurnal variations of pollen in different regions, the relationship between major Poaceae pollen allergens and allergy risk periods, and the comparison of aerobiological monitoring stations. Notable technological innovations were also discussed, such as real-time automatic pollen monitoring systems and the application of phenological and meteorological data in predicting crop yields. The congress was expertly organized by Estefanía Sánchez Reyes and David Rodríguez de la Cruz, who also served as editors of the abstract book. The Aerobiology plenary conference was delivered by María Fernández González from the University of Vigo.

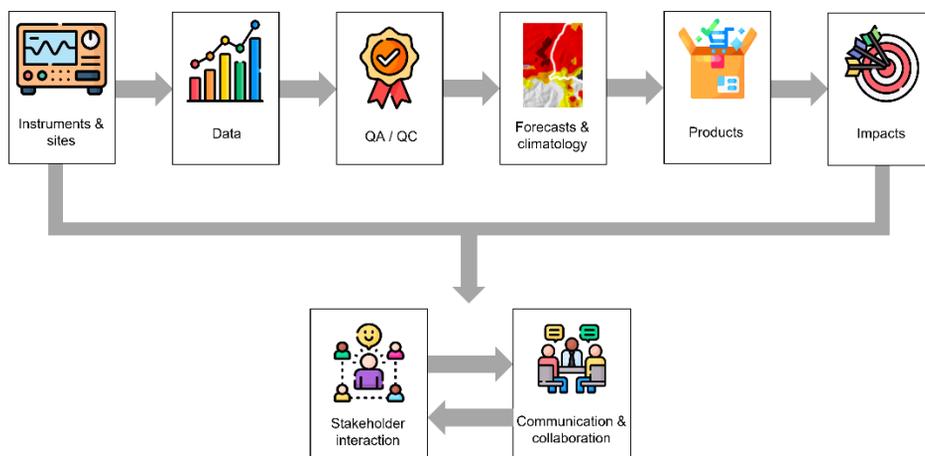
Other activities



AutoPollen Programme

Bioaerosols significantly impact human health since the allergens within some of them affect 15-40% of the European population. Additionally, some of them, like plant pathogens, cause significant damage to crops and forests. Monitoring pollen and fungal spores is thus crucial for enhancing environment and human health and reducing related costs. For example, asthma and untreated allergies cost the European public health system an estimated €50-150 billion annually. Traditional monitoring technologies were developed in the 1950s and have limitations, such as low time resolution and significant delays in data availability. However, new technological advancements now enable real-time, high-resolution detection of bioaerosols, revolutionising possibilities across allergy science, agriculture, climate and ecosystem studies, as well as allergy management for physicians and patients, and plant protection for agriculture and forestry.

EUMETNET AutoPollen is a programme which aims to develop and maintain an automatic real-time pollen and fungal spore monitoring network at the European scale. It started in 2018 and for five years, the objective was to serve as a proof-of-concept for both the technical and user-oriented aspects. AutoPollen provided the platform to share experience and knowledge and as a community the programme helped develop protocols for data exchange, quality assessment, and the basis for a European-wide monitoring network. It also enabled discussions between stakeholders interested in pollen and bioaerosols in general, whether coming from agriculture and forestry, climatology, research, industry or medical fields, and allowed the community to understand end-user needs.



Picture: Overview of the topics that the AutoPollen community works on to build a European automatic pollen and fungal spore network (Own creation).

Building such a network implies the collection of good quality data coming from the new automatic devices, using cutting-edge software and technology. An important intercomparison campaign was organised together with the COST-ADOPT action “New approaches in detection of pathogens and aeroallergens” and took place in Munich, Germany, in the spring of 2021. Eighteen instruments from fourteen different manufacturers with several recognition algorithms were compared and it was concluded that a certain number of automatic pollen detection devices can be used operationally and provide real time observations to build a European network. Interactive results of this intercomparison, as well as a list of publications, are available on the AutoPollen website (<https://autopollen.net/intercomparison-campaign/>). The community also worked on developing forecast models that include these new real-time automatic pollen measurements.

This first phase of the project highlighted the need to establish European standards for pollen and fungal spores, which is why the AutoPollen community started working with the CEN to develop such a norm. In parallel, AutoPollen has been identifying criteria that can be used to define certified standard and reference monitoring sites for automatic pollen and fungal spore monitoring. By creating such standards, the AutoPollen network aims to ensure that good quality data is available for free to the entire European population. These activities are supported by the EURAMET BioAirMet project (<https://www.bioairmet.ptb.de/home>).

Through these activities, the first phase of AutoPollen established the foundations for a European-wide automatic pollen and fungal spore monitoring network, from data acquisition to delivering a product to end users. This was accomplished through defining instrument and site requirements, developing data quality criteria and transfer protocols, and demonstrating the network's overall feasibility, aspects all of which are summarised in a special issue of *Aerobiologia* published in 2024 (<https://link.springer.com/journal/10453/volumes-and-issues/40-1>).

EUMETNET AutoPollen will continue for an additional five years until at least 2028, the normal period for EUMETNET programmes (they are renewed every five years). The AutoPollen community thus continues to build on the basis laid in the first phase, with the certification of monitoring sites and implementation of data quality criteria, the continuation of forecasting model development, the organisation of events reuniting stakeholders across Europe, and a focus on providing resources for users of automatic bioaerosol monitoring devices.



Autopollen Programme



The programme particularly aims at providing a lasting infrastructure after the end of the Horizon Europe SYLVA project (<https://sylva.bioaerosol.eu/>), aiming to facilitate further data transfer and storage, standardised identification algorithms, and European-wise data quality controls. In this context, various standardised datasets for training and comparison of recognition algorithms will be provided so as to identify the best combination of devices and algorithms for bioaerosol monitoring in various parts of Europe.



Tilia cordata Mill., Gard. Dict., ed. 8. n. 1, 1768

While technical and quality aspects are the main focus, the AutoPollen programme puts emphasis on supporting the community through training schools and videos, helping new users of automatic bioaerosol devices, and working hand-in-hand with instrument providers, stakeholders and end-users to provide the best services possible. More information can be found on the AutoPollen website: <https://autopollen.net/>



Picture: AutoPollen participants during the 2023 annual meeting in Brussels.

Marie-Pierre Meurville
EUMETNET AutoPollen Scientific Coordinator



FINAL Meeting of Cost ADOPT in Edmund Mach Foundation



The final meeting of the COST Action ADOPT was held at the Edmund Mach Foundation in San Michele all'Adige, Italy, on March 19-20, 2024. The local organization, with Elena Gottardini, Fabiana Cristofolini, Antonella Cristofori, and Franziska Zemmer, managed the event excellently, ensuring the effective closure of the project. During two days of intensive work, the significance of the project's achievements was emphasized. Particularly notable was the successful outcome of numerous impactful publications, some of which were featured in related special issues of high impact journals as Science of the Total Environment (STOTEN). This COST action explored the use of real-time technologies, molecular methods such as eDNA, immunological approaches for allergen detection, low-cost devices, and remote sensing, as well as the integration of these methods to enhance our understanding of bioaerosols and their interactions with the environment.



The crucial roles of the work package leaders were highlighted, as well as the exceptional leadership of Principal Investigator Carsten Skjoth, who successfully steered the project through the extreme conditions imposed by the COVID-19 travel restrictions.



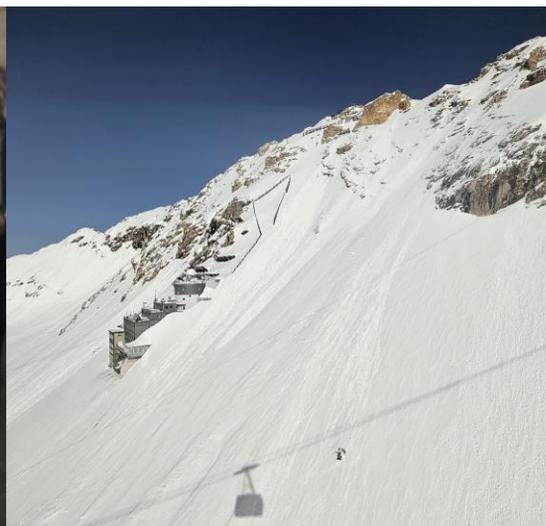
General Assembly of Project SYLVA 2024 Eibsee (Germany)



The General Assembly of the SYLVA project was held at Eibsee, Germany, from April 10-12, 2024. The meeting was organized by the team of Professor Jeroen Buters from the Zentrum Allergie und Umwelt, with participation from key members of the project. Professor Mikhail Sofiev, the Principal Investigator, led the assembly, which included a series of technical reporting sessions, discussions, and strategic planning for the project's future.



During the first day, the focus was on the progress of Work Package 2 (WP2), including advancements in EU infrastructure for automatic pollen monitors, data transfer protocols to EBAS, and the development of new algorithms for data reanalysis. Significant contributions were made by Robert Gebauer, Samer Alashhab, and others who provided detailed updates on the SYLVA Data Portal and ongoing improvements to pollen monitoring technologies. The second day of the assembly was held at the Zugspitze Scientific Center UFS, where discussions centered around the organization of the SYLVA infrastructure and the development of reference datasets. The Working Group on SYLVA Infrastructure, led by Mikhail Sofiev, presented their findings, and the need for a European Bioaerosol Monitoring Network was highlighted. On the final day, the assembly concentrated on planning the forthcoming deliverables.





EAACI Aerobiology and Pollution WG

Other activities

Changes to the EAACI Aerobiology and Pollution WG board 2024-2026



The composition of the Aerobiology and Pollution Working Group (EAACI) has recently undergone a change, with Célia Antunes assuming the role of Chair, succeeding Athanasios Damialis.

This Working Group plays a relevant role in advancing the understanding of airborne allergens and pollutants, focusing on their impact on public health. Under the previous leadership, the Working Group achieved significant milestones, for example the development of the "Pollen Map of the World" (<https://www.zaum-online.de/pollen/pollen-monitoring-map-of-the-world/index.html>), key studies on sensitization understanding and several systematic reviews with high impact.

The new leadership under Célia Antunes is committed to maintaining continuity, with a focus on ongoing Task Forces and the definition of new challenges aiming at further exploring sensitization patterns to pollen and developing interactive applications to better understand and manage these environmental factors.



In the right top (Córdoba, Spain) some members of the previous WG board with A. Damialis (Past WG Chair) and Celia Antunes (Past WG Secretary and current WG Chair) in the center. In the left a picture of assistants to the last Task-Force meeting held in Izmir (Turkey).

EAACI Aerobiology and Pollution WG composition (2024-2026):



Célia Antunes (WG Chair)



Stefanie Guilles (WG Secretary)



Athanasios Damialis (Board Member)



Ozlem Goksel (Board Member)



Jose Oteros (Board Member)



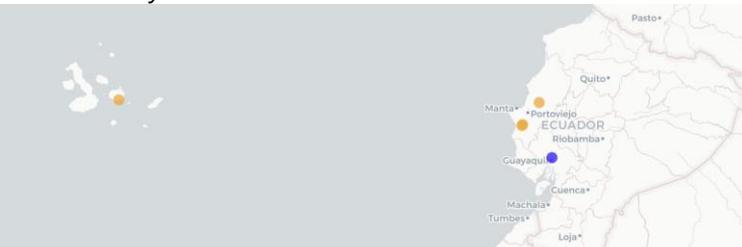
Other activities

First scientific convention at UNESUM University. Aerobiology in Ecuador



The first scientific convention at UNESUM University, held in conjunction with the II International Congress on Environmental Sciences, took place from August 21 to 23, 2024. The event was organized by Dr. Alex Joffre Quimis, with coordination support from Dr. Yamel Álvarez and scientific authorities of the university. The Environmental Engineering degree, under the coordination of Dr. Julio Jaramillo, also played a key role in organizing the event. The convention covered a wide range of topics related to environmental quality, but Aerobiology had a fundamental role, opening the last day event with an invited keynote titled "Aerobiological Sampling: Innovations and Challenges in Environmental Management.", by J. Oteros.

In Ecuador, Aerobiology is an emerging science, evidenced by the limited monitoring stations currently active. The country has only two Hirst-type samplers, led by Dr. Iván Chérrez in Guayaquil area (UEES). They have been operational for a few years, with a few of sporadic studies conducted across the country. Notably, there has been sampling in the Galápagos Islands, spearheaded by Dr. María del Mar Trigo. Currently, new studies are beginning in the Manabí region using passive Durham samplers for various purposes, including the analysis of phytopathogens in cacao crops (ESPAM/UTM) and pilot studies in UNESUM University.





Other activities

Temporary exhibition: "Pollinic Analogies"



Irene Camacho presented its 3rd artistic exhibition entitled "Pollinic Analogies" at the Rectory Building of Madeira University (Portugal).

It is a temporary exhibition available to the public during July of 2024.

Nature, in any of its dimensions, whether at a macroscopic level (observable) to the naked eye, or at a microscopic level, it is a fascinating world of inexhaustible inspiration. The wall of a pollen grain has a peculiar ornamentation, distinct from plant species to plant species, being strongly related to the pollination process. This wall is made up of layers and contains chemical substances involved in the attraction, dispersion and interaction of the pollen grain with the flower's stigma.

This exhibition shows several objects, organisms and landscapes similar to some pollen grains and/or its pollen wall...or will it be the opposite?

According to Leonardo Boff (a contemporary writer and philosopher), "Every point of view is a view from a point. To understand how someone observes, it is necessary to know how their eyes view the world". Therefore, this exposition invites anyone to observe each of the images and observe them carefully, as if one had the eyes of an Aerobiologist, and by his own vision.

Irene Camacho
Faculty of Life Sciences,
University of Maderia, Portugal



FAIR Phenological Modelling

Other activities

Fair Phenological Modelling

The workshop "FAIR Phenological Modelling" took place from March 11-15, 2024, at the Lorentz Center in Leiden. Organized by Mahdi Khodadadzadeh, the board of the event brought together prominent scientists in the field of phenology, including Luis Zurita, Herminia García-Mozo, Iñaki de Cortazar Aauri and Isabelle Chuine, and Anette Menzel. They contributed with insightful talks and discussions. Throughout the week, participants engaged with some of the developers of phenological processing tools, such as the Phenology Modelling Platform and various R packages, including phenor, chillR, and Aerobiology. These tools were introduced during dedicated training sessions, providing hands-on experience for attendees. Aerobiology played a significant role in the workshop, given its close connection to phenology and the future challenges the field faces. The workshop served as a launching point for new initiatives and missions.



netherlands
eScience center

Lorentz
center

Workshop @Snellius

FAIR Phenological Modelling

11 - 15 March 2024, Leiden, the Netherlands

Upcoming meetings



Basic Course

The most relevant basic Aerobiology course!



Next EAS Basic Course on Aerobiology will be held in Poznań, Poland, in 2025.

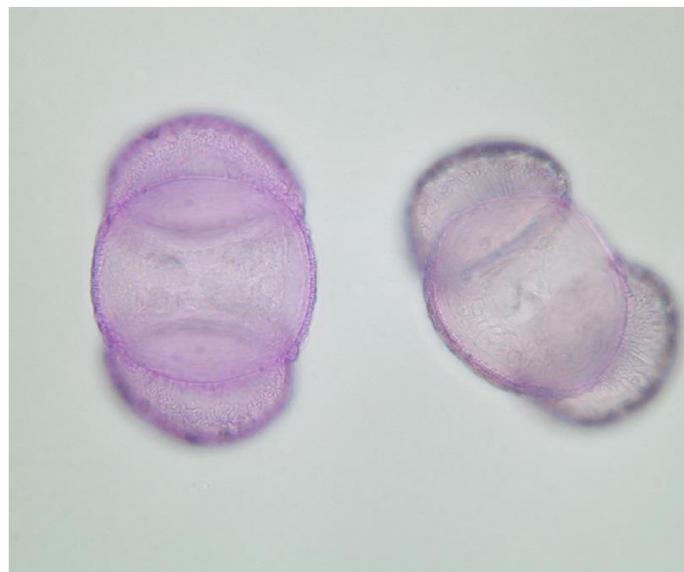
European basic course on aerobiology

The increasing number of national aerobiological monitoring networks that have been set up has enabled scientists to compare procedures and deepen the fundamentals of monitoring techniques. The Basic Aerobiology Course was developed to meet the growing interest in the monitoring of airborne biological particles and the resultant need for a standardisation of all procedures, including for quality control. An educational program to train technicians has been brought forward and was started with a series of European Courses in Aerobiology.

The upcoming Aerobiology Course in Poznań, scheduled for 2025, represents a continuation of our commitment to fostering excellence in the field of aerobiology. As the number of national aerobiological monitoring networks continues to grow, the need for standardization and quality control in monitoring airborne biological particles has become increasingly critical. This course is designed to address these needs by providing comprehensive training to technicians and researchers, ensuring they are equipped with the latest methodologies and best practices.



Picea abies (L.) H.Karst.



Pinus sylvestris L.



IAA International Congress

Do not miss!



Next IAA International Congress

Next IAA International Congress on Aerobiology will be held in Kolkata, India, in 2026.

Early Announcement: 13th IAA congress

The next (13th) International Congress on Aerobiology will be held in Kolkata, India. It is currently planned for late 2026.

The IAA Quadrennial Congress interests aerobiologists and related scientists and professionals in medicine, public health, biological sciences, botany, agriculture, atmospheric physics, environmental science and cultural heritage. The main aim of the Congress is to enable interdisciplinary communication and to provide opportunities to the delegates for discussion about the different aspects of aerobiology.



Kashinath Bhattacharya,
congress organizer



Kolkata Victoria Memorial (photo Nirmal Sarkar)

IAA Announcements



Call for the next IAA Advanced Aerobiology Course

The **Advanced Aerobiology Course** series has been created for people having already a technical knowledge of aerobiology, i.e., of sampling and identification of airborne biological particles. This series of courses is aimed at understanding the aerobiological processes, and at giving a solid background for the interpretation of aerobiological results. This series of courses is held in different bio-geographical zones, and for this reason they include classes and practical activities often linked to the chosen site. The Advanced Aerobiology Courses are organized jointly by an international team of experts, under the umbrella of the IAA. The IAA invites proposals from members to organize the next Advanced Course. Short proposals (max. 3 pages) should be submitted by email to the President.

Please note that the financial management of the course is the responsibility of the course organizers. This includes covering all necessary expenses such as venue rental, materials, and logistical support. While the IAA may offer financial assistance in the form of grants to help alleviate some of the organizational costs, it is essential that the primary financial planning and budgeting are handled by the organizing team. It's important to recognize that the teachers and lecturers who participate in these courses do so on a voluntary basis, driven by their passion for advancing the field of aerobiology and sharing their expertise, but their expenses are usually covered by the course organization.

We encourage all interested members to propose topics that align with current challenges and advancements in aerobiology. Potential subjects could include new methodologies in airborne particle sampling, the impact of climate change on aerobiological patterns, or the integration of aerobiological data in public health strategies. Your innovative ideas will help shape the future of our discipline and provide valuable learning experiences for participants.

We sincerely thank all volunteers for their dedication and contributions to the success of these courses in the past. Your involvement is crucial in advancing the field of aerobiology and in fostering a global community of experts. Together, we can continue to inspire and educate the next generation of aerobiologists.





IAA Announcements

Call for Contributions to the IAA Newsletter

The International Association for Aerobiology (IAA) is pleased to announce that we are now accepting submissions for the upcoming issues of the International Aerobiology Newsletter. Published twice a year, the Newsletter serves as a vital communication channel within our global community of aerobiologists. It provides an informal yet effective platform for exchanging news, ideas, and information, and plays a key role in fostering connections among our members.

We encourage you to share your news, reports, upcoming events, publications, and any other information that you believe would be valuable to our community. Your contributions help keep the Newsletter vibrant and informative, strengthening our global network.



We invite all members and colleagues to contribute relevant content to be featured in the Newsletter. Each issue might include sections on:

- International Events: Coverage of major events of aerobiological interest around the world.
- Research Reports: Updates on research activities from various countries, highlighting recent developments and findings.
- Requests for Contacts and Job Advertisements: A space for members seeking collaborations or advertising job opportunities in the field of aerobiology.
- Upcoming Events: Information on future conferences, workshops, and other events related to aerobiology.
- Publications: A section dedicated to recent publications that may be of interest to our members.
- IAA Executive Committee Activities: Updates on the activities carried out by the IAA Executive Committee, including the Minutes of the IAA General Assembly meetings.
- And much more: Project dissemination, other news and event, announcements...

Please send us any relevant information related with Aerobiology that you would like to publish in next IAA Newsletter Issue!

Send the information to iaanewslettereditor@gmail.com
and/or jose.oterosp@uco.es

Jose Oteros
NEWSLETTER EDITOR



IAA Membership



We cordially invite everyone to join the IAA. You can do it in three easy steps

1. Go to the [IAA website](#), download and fill the **IAA Membership Application Form**.
2. Scan the document and send it to IAA Treasurer (address below):



Benoît Crouzy, treasurer

Federal Office of Meteorology and Climatology,
MeteoSwiss, Chemin de l'Aérologie CH-1530
Payerne, Switzerland

Email: benoit.crouzy@meteoswiss.ch



3. Pay the individual membership due (details below).

IAA Individual membership dues: **US\$ 45 or 40 € by year** includes electronic access to the journal *Aerobiologia*. You can pay for one or several years (e.g. 2024-2026). Please send a bank transfer to the following IAA Bank Account with the description "**IAA dues – your name & surname**":



BANK	ABANCA
IBAN code	ES46 2080 0470 2530 4000 9808
ACCOUNT NUMBER	2080-0470-25-3040009808
BIC/Swift Code	CAGLESMMXXX
MODE	Cuenta Corriente - Comun
HOLDER	THE INTERNATIONAL ASSOCIATION FOR AEROBIOLOGY
AUTHORIZED	Dorota Myszkowska
AUTHORIZED	F. Javier Rodríguez Rajo

Current IAA members are reminded of the timely payment of their annual membership fees. Thank you!



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