



A focus on research and education tools in environmental toxicology and chemistry

Chairs: Christian Mougin, Wilfried Sanchez

Currently, it is of increasing importance to organize and share the knowledge on research and educational opportunities and facilities in the fields of environmental toxicology and chemistry within the community of European ecotoxicologists.

The session will present the recent developments in European countries concerning these fields. It will present:

- the most relevant networks and means, involved in the coordination, the planning and the investment in research and training,
- the main research infrastructures, major devices and technical platforms for research, including data storage and management, that can be offered to ecotoxicologists,
- the educational and training programs in the fields covered by SETAC, as well as webinars,
- the presentation of international research programs, including European opportunities.

We welcome presentations concerning all these topics, and hope fruitful exchanges between scientists.

Preliminary session type: Platform and Poster

Communication of uncertainty - perceptions, needs and knowledge gaps

Chairs: Agnieszka Hunka, Mattia Meli

How much uncertainty can we comfortably tolerate as consumers, concerned citizens or risk assessment experts? This question is posed every time people face a risky outcome and the answer is very often: "none at all". The scientific community is up to the challenge - innovative risk assessment methods are on the rise and risk assessors now have a whole arsenal of computer models, field studies and whole-genome sequences to aid their work, while the European Commission spent € 75M in 2014 on the European Food Safety Authority (EFSA) alone. Yet, new methods come with new uncertainty estimates and are not embraced with particular enthusiasm. Can science give us 100% certain answers we expect?

This session is aimed especially at scientists and risk assessment practitioners in the area of environmental assessments and decision making. We want to share practical experiences in communication of uncertainty to different stakeholder groups, discuss the needs of the regulatory community with regard to the increasing complexity of environmental risk assessments - also in terms of uncertainty analyses - and propose a common platform for addressing uncertainty within the diverse SETAC community.

We would like to invite experts in communication, assessment, and management of environmental risks to address the issue from their own perspective. Current research results are welcome, but so are theoretical approaches, state-of-the-art reviews and, most importantly, practical perspectives on needs and possible solutions with regard to uncertainty communication in regulatory science. We hope that this session will spark a lively debate on this important subject.

Sponsored by: Science and risk communication Advisory Group (Europe)

Preliminary session type: Platform and Poster

From scientific insight to lay understanding - how to convey meaningful information from environmental research

Chairs: Thomas-Benjamin Seiler, Leonie Nuesser

This session is aimed at communication from inside research institutions to the general public. As a target group for science and especially risk communication the general public is quite diverse in terms of their position and function in the course of communication. On the one hand they are recipients of such information, but on the other hand they are also processing information and acting as multipliers. In addition, as news consumers they can influence the headlines of mass media, which is a new development alongside the increasing extensity of social web usage. And last not least, the general public can have impact on political decision processes when acting as concerned voters.

Hence, proper communication of environmental research, risks and issues to the general public is both very important and quite challenging. Misunderstanding will lead to false knowledge, and thus it might decrease success of communicating findings or benefits and risks as well as raise wrong concerns.

Therefore in particular environmental scientists require good knowledge about how to communicate with the general public, and that is why research on this topic seems an important aspect of environmental sciences.

Our session invites communication scientists and experts to share their specific knowledge and help other researchers to learn about the do's and don'ts, the pros and cons, the must-haves and no-gos in science and risk communication. Contributions could, e.g., present current research results, review existing concepts and strategies, introduce forthcoming projects, critically discuss state-of-the-art and point out problems, and deliver possible solutions. We seek to initiate a lively discussion between the presenters and the audience. Listeners are encouraged to report their own cases, issues or experiences.

Sponsored by: Science and risk communication Advisory Group (Europe)

Preliminary session type: Platform and Poster

How can we improve the link between academic research and policy-making in order to advance chemical risk assessment and management?

Chairs: Zhanyun Wang, Martin Scheringer, Thomas Backhaus

For decades, science and policy have been closely linked in chemical risk assessment and management; i.e., policy influenced the production and stabilization of scientific knowledge and scientific knowledge simultaneously supported and justified policy. Learning from the initiation and implementation of the Convention on Long-Range Transboundary Air Pollution, this co-production of science and policy has been a key success factor in identifying and addressing chemical-related issues: evidence from exploratory research can grow stronger if the policy context is "right," and, similarly, a weak policy context can become stronger if confirmatory evidence is produced. However, increasingly divergent developments challenge the connections between science and policy making. In particular, the rapidly growing complexity in both areas requires a more and more extensive learning of each other's context, which is often neglected in view of tight deadlines and an increasing specialization of the participants. Furthermore, the exponential increase in global and local knowledge and information creates yet another challenge for establishing and safeguarding communication between scientists and policy makers. To date, most scientific studies focus on cutting-edge questions in highly specific aspect(s) of an issue (a particular chemical, emission pathway, ecotoxicological endpoint, etc). In contrast, policymakers need to find, select and integrate a wide range of knowledge, not only from natural sciences but also from e.g. social sciences, economics and law, in order to obtain a broad overview of the issue at hand. The resulting disconnect between science and policy-making leads to unnecessary delays. For example, first scientific evidence of the high persistence and possible adverse effects of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) were reported already in the 1960s. However, most countries started to assess and regulate these substances only after the turn of the millennium and in many countries, emissions are still ongoing. A similar disconnect is obvious in the heated debates on endocrine disrupting chemicals (EDCs) and neonicotinoid insecticides.

This session intends to provide a platform for analyzing the possibilities for improving the challenging, but urgently needed, dialogue between the scientific and regulatory communities. We invite scientists as well as policy makers and communication experts to share demands and concerns from past and present experiences on the communication between science and policy, i.e. how, when and what to communicate to whom. In particular, this session intends to explore existing and upcoming tools and instruments to strengthen the communication between science and policy.

Preliminary session type: Platform and Poster

Science with Style: Using social media tools to communicate environmental research and its impacts with colleagues, collaborators, and communities

Chairs: Erica Brockmeier, Dragan Jevtic, Tomica Misljenovic, L. Blair Paulik

As our society becomes increasingly global and interconnected, scientists have come to recognize the importance of being a part of the wider dialogue on the issues facing our world. While there has been a shift away from the mindset of scientists being set apart from the rest of society, we are still learning how to translate crucial findings in the lab to impactful changes in policies and behaviors. Scientists in the field of environmental toxicology and chemistry are an especially important part of this dialogue, as our work is related to pollutants, food additives, personal care products, and how all of these things impact ecological processes and human health. In addition to increased interactions with the general public, there is also a great need of extending our scientific discussions to new collaborators within environmental toxicology as well as other fields of research. As we delve deeper into the major issues facing our world, it is clear that working only with colleagues of similar interests and backgrounds can lead to missing the bigger picture.

While there are many approaches for enhancing our dialogue and outreach activities about science, this session will focus on the use of social media as an outreach tool. We invite presentations on social media communication strategies for reaching out to other scientific groups (e.g. environmental engineers, remediators, NGOs, policy-makers, etc.), as well as approaches for sharing and communicating scientific findings with new collaborators, to show how SETAC members can use social media to expand their research network both inside and outside their own fields. We also invite presentations which describe the use of social media for public outreach, especially those focused on up-and-coming platforms and on finding creative methods for sharing science to the wider community.

More specifically, we encourage presentations including but not limited to the following topics: (i) A case study of how your lab or research group has developed and used social media-based tools for science outreach, (ii) Strategies and methods for communicating complicated research topics to a specific audience on social media, (iii) Perspectives from NGOs and policy-makers and how to best communicate science with these interest groups, (iv) Approaches for establishing collaborations with researchers outside of environmental toxicology and chemistry, (v) Establishing a social media presence with a scientific angle, (vi) Social media for promoting your work and reaching out to new collaborators and colleagues within the field of environmental science, (vii) How to embrace and best utilize new and emerging social media platforms (Instagram, Vine, Reddit) to share science in more creative ways

This session is coordinated by the SETAC Europe Student Advisory Council (SAC Europe) and the SETAC North America Student Advisory Council (NASAC). We encourage both students and senior scientists to submit their work to this session and to join us in the wider discussion about using social media to promote better communication both within and outside of the SETAC community.

Preliminary session type: Platform and Poster

