



SS02

New Challenges for Ecological Risk Assessment

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In the last few decades, ecological risk assessment was based on simplified tools in order to provide methods suitable to be applied in support of chemical regulations. This pragmatic approach produced transparent and easy methods, applicable using the reduced information available, and allowed the development of many European Directives and Regulations (pesticide and biocide directives, REACH, etc.). According to Van Straalen (2003), chemical control in the last few decades substantially changed environmental and pollution problems in developed countries.

In spite of their practical usefulness, these tools, mainly based on laboratory toxicological tests, suffer for a lack of ecological realism. Their capability to describe and predict the actual consequences on structure and functions of natural ecosystems is poor. Therefore, there is the need for the development of new tools capable to accounting for the complexity of communities and ecosystems. In the same time, these tools should be realistically applicable in risk assessment procedures.

In the frame of scientific committees of the European Commission (SCHER, SCENHIR, SCCS) a Working Group is ongoing on "Addressing the New Challenges for Risk Assessment". An opinion will be approved by the end of 2011. The environmental subgroup highlighted a number of relevant issues worth to be developed:

- Increasing the ecological realism of effect assessment approaches.
- Assessing the effects of highly time-variable exposure
- Covering the gap between effects at cellular or individual level and consequences at ecologically relevant end points.
- Assessing the vulnerability of natural biological communities and ecosystems
- Assessing the role of indirect ecological effects of stressors
- Assessing the interactions between combined stressors and environmental factors.
- Trait-based risk assessment.
- Ecological Modelling
- Improving the scientific bases for the development of extrapolation approaches.

The special session will be a follow up of this Working Group and will be developed under the patronage (and possibly with the economic support) of the European Commission, DG SANCO. The session will provide indication, and hopefully a consensus, on the status of the art and on the research needs in ecotoxicology for the next future, supporting or criticizing the conclusions of the EC Working Group. Therefore, it will have high relevance in the frame of the activities and the mission of SETAC.

If possible, the session should last for a full day. In the morning the relevant issues will be presented by invited speakers. The afternoon will be devoted to discussion and to the preparation of a SETAC position document.

A preliminary programme (on the basis of the time schedule of the 2011 meeting in Milano) is suggested below.