



Network of reference
laboratories for monitoring of emerging
environmental pollutants



CLUSTERS
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ENVIRONNEMENT



4th NORMAN workshop

“Integrated chemical and bio- monitoring strategies for risk assessment of emerging substances”

Organised by

FP6 NORMAN project
CEMAGREF – Agricultural and
Environmental Engineering Research
Institute
Lyon - FRANCE

17-18 March 2008

Trace Element – Institute for UNESCO

LYON, FRANCE

<http://www.norman-network.net/>

Date and Venue

Date: 17-18 March 2008

Place: Lyon, France

Venue: Trace Element–Institute for UNESCO–1 place de l'Ecole–69007 Lyon

Time: Registration opens at 9:00 – Monday, 17 March, 1st Floor of the venue

For directions and maps, please see the Norman workshop website:
<http://norman.ineris.fr/public/workshops/workshopss.htm>

Evening event (Riverboat Dinner cruise to Barbe Island)

Date: 17 March 2008

Departure place: Quai Claude Bernard–69007

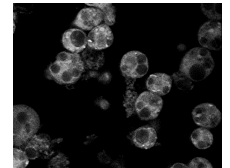
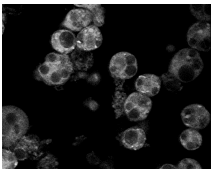
Boat: Hermès

Meeting time: 20:00

Price: 44,00€ per person (includes the cruise and dinner)

Workshop Secretariat

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Objectives of the workshop

The workshop will explore chemical and biological effects-driven strategies for risk assessment of emerging pollutants and the potential for their integration under legislative frameworks.

Within the Water Framework Directive, for example, the assessment of the aquatic ecosystem is based both on biological monitoring of ecosystems at the community level and on chemical monitoring of priority and river basin-specific substances. Nevertheless, the link between the two approaches is not straightforward.

Toxic effects in the field can be caused by complex mixtures of known and unknown pollutants. Thus, beside a chemicals-driven strategy for the ecological risk assessment of the pollutants in field, it is necessary to apply and explore new strategies, combining both biological responses and chemical analysis, to identify toxic spots, characterise chemicals likely to cause adverse biological effects and, finally, assess the ecological risk of the identified chemicals at relevant spatial scales.

Specific topics

The aim of the workshop is to provide an overview of, and a basis for discussion on:

- existing protocols and experiences from the application of strategies integrating chemical and biological methods, under different policy frameworks
- the way in which these strategies should be used to complement the chemical-driven risk assessment approaches
- the advantages and the still existing limitations of these strategies (and associated research needs) from the point of view of the policy managers
- proposals for concrete actions for harmonisation and standardisation of integrated chemical and bio-monitoring strategies for large-scale monitoring of ecological risk assessment of chemicals.

Scientific committee

J.Garric	CEMAGREF - Agricultural and Environmental Engineering Research Institute (FR)
M.Coquery	CEMAGREF - Agricultural and Environmental Engineering Research Institute (FR)
R.Tutundjian	CEMAGREF - Agricultural and Environmental Engineering Research Institute (FR)
V.Dulio	INERIS - National Institute for Industrial Environment and Risks (FR)
J.M. Porcher	INERIS - National Institute for Industrial Environment and Risks (FR)
P.Leonards	IVM - Institute for Environmental Studies, VU University Amsterdam (NL)
R. Owen	EA - Environment Agency (UK)
H. Budzinski	CNRS - National Centre for Scientific Research (FR)

Programme

As a follow-up to the workshop "New tools for bio-monitoring of emerging pollutants" (Amsterdam, 29-30 October 2007), which was mainly addressed to the scientific community and focused on recent research results in this field, this third workshop will address both science and policy communities and their challenges in the risk assessment of emerging pollutants under different policy frameworks such as the Water Framework Directive, the soil strategy, OSPAR, MEDPOL and AMAP.

- Session I** : Prioritisation of emerging substances for field monitoring and risk assessment
- Session II** : Effects-driven approaches for field monitoring and risk assessment of emerging pollutants
- Session III** : Integrated approaches within risk assessment strategies for monitoring risk of emerging pollutants at local and large scales

Keynote speakers

Eric VINDIMIAN - French Ministry of Research

Achievement of a good chemical and ecological status: existing challenges and a way forward to improve the risk assessment strategies

Ketil HYLLAND - NIVA, Norway

Integrated chemical and biological monitoring in marine ecosystems - the OSPAR approach

Tamara GALLOWAY - University of Exeter, UK

Integrating biomarkers into risk assessment strategies for aquatic ecosystems

Dick VETHAAK - Deltares, The Netherlands

Opportunities for low volume bioassays (bioanalysis) in monitoring and risk assessment of emerging chemicals

Werner BRACK - UFZ, Germany

Effect-directed key toxicant identification in aquatic sediments: state of the art and future challenges

Kevin THOMAS - NIVA, Norway

Effects-directed identification of emerging substances

Etiënne VERMEIRSEN - Eawag, Switzerland

Passive sampling and combined biological and chemical analysis of estrogens and photosynthesis inhibitors

Monday, 17 March 2008

9:00 – Welcome breakfast & Registration (1st Floor)

10:00 – Introduction

Session I : Prioritisation of emerging substances for field monitoring and risk assessment

Chairmen: Valeria DULIO (INERIS-France) and Marina COQUERY (CEMAGREF-France)

10:15 Keynote speaker: Eric VINDIMIAN (Ministry of Ecology and Sustainable Development - France)

Achievement of a good chemical and ecological status: existing challenges and a way forward to improve the risk assessment strategies

10:45 Jean-Philippe BESSE (CEMAGREF-France)

Implementation of a prioritization method for selecting human pharmaceuticals to survey in surface waters in France

11:15 coffee break

11:30 Jaako MANNIO (SYKE – Finland)

Screening of consumer and industrial chemicals and pesticides as priority substances in Finnish aquatic environments

12:00 Alistair BOXALL (University of York – UK)

Emerging and future environmental contaminants: What should we be testing and monitoring?

12:30 Lunch and Poster Session

Session II : Effects-driven approaches for field monitoring and risk assessment of emerging pollutants

Chairmen: H el ene BUDZINSKI (ISM CNRS-France) and Pim LEONARDS (IVM-The Netherlands)

14:30 Keynote speaker: Werner BRACK (UFZ – Germany)

Toxicity identification in contaminated sediments

15:00 Keynote speaker: Kevin THOMAS (NIVA – Norway)

Effects-directed identification of potential emerging substances in effluents and surfacewaters

15:30 Gregory LEMKINE (Watchfrog S.A.S – France)

Adaptation of measurements on small model organisms to semi-robotised readouts

16:00 coffee break

16:30 Concha MARTINEZ-GOMEZ (Spanish Institute of Oceanography – Spain)

Biomonitoring strategy of chemical pollution along the Iberian Mediterranean Coast: Development of the MEDPOL approach

17:00 Lars-Otto REIERSEN (AMAP – Norway)

Arctic as the Sentinel for Environmental Processes and effects; Results from the Arctic Monitoring and Assessment Programme (AMAP)

17:30 Heinz RUDEL (Fraunhofer IME – Germany)

The German Environmental Specimen Bank Program as a Tool for the Retrospective Monitoring and Assessment of Emerging Chemicals

18:00 End of first day

20:00 Riverboat dinner cruise to Barbe Island

Tuesday, 18 March 2008

Session III : Integrated approaches within risk assessment strategies for monitoring risk of emerging pollutants at local and large scales

Chairmen: Jeanne GARRIC (CEMAGREF-France) and Tamara Galloway (University of Exeter-UK)

8:30 Keynote speaker: Ketil HYLLAND (NIVA – Norway)
Integrated chemical and biological monitoring in marine ecosystems – OSPAR approach

9:00 Keynote speaker: Dick VETHAAK (Deltares – Germany)
Opportunities for low volume bioassays (bioanalysis) in monitoring and risk assessment of emerging chemicals

9:30 Keynote speaker: Etienne VERMEIRSSSEN (EAWAG – Switzerland)
Passive sampling and combined biological and chemical analysis of estrogens and photosynthesis inhibitors

10:00 coffee break

10:30 Bo JACOBSEN (Avedoere Wastewater Services – Denmark)
Combined chemical analyses and biomonitoring at Avedoere WWTP

11:00 Selim AIT AISSA (INERIS – France)
Multiple endocrine disrupting activities in French river sediments as assessed by the combined use of in vitro bioassays and chemical analyses

11:30 Shane SNYDER (Southern Nevada Water Authority – USA)
Risk Assessment of Pharmaceuticals in US Drinking Waters

12:00 Lunch and Poster Session

14:00 Keynote speaker: Tamara GALLOWAY (University of Exeter – UK)
Integrating biomarkers into risk assessment strategies for aquatic ecosystems

14:30 Thierry BAUSSANT (IRIS – Norway)
Monitoring methodologies for accidental spill of hazardous and noxious substances at sea: An integrated approach

15:00 Steiner SANNI (IRIS – Norway)
Biomarker response distributions as tool to validate environmental risk of hydrocarbon discharges and to monitor early effects of emerging pollutants in arctic species

15:30 coffee break

Preparation time for summary/concluding remarks

16:00 Peter von der OHE (UFZ – Germany)
The use of the SPEAR and toxic units indicators to link ecological status to chemical pollution

16:30 Questions session and concluding remarks

17:30 End of the workshop