



RESEARCH INFRASTRUCTURE

European Cooperation in
Science and TechnologyCyanobacterial blooms and toxins in water resources:
Occurrence, impacts and management

11th RECETOX Summer School on Toxic Compounds in the Environment 2015

Date: 14/6 – 20/6/2015
Venue: Research Centre for Toxic Compounds in the Environment (RECETOX),
Masaryk University, Faculty of Science
University Campus Bohunice (UKB), building A29-RECETOX
Kamenice 753/5, 625 00 Brno, Czech Republic

PROGRAMME				
Sunday, 14/06/2015				
Arrival of participants				
Monday, 15/06/2015				
University Campus Bohunice (UKB), building A29-RECETOX, lecture room RCX 1, 2nd floor				
8:30 - 9:00	<i>Registration</i>			
Introduction (groups A + B)				
9:00 - 9:30	Jana Klánová	Welcome and introductory remarks (MU, RECETOX introduction)		
9:30 - 11:00	Ivan Holoubek	Introduction to Environmental Chemistry		
11:00 - 11:30	<i>Break – coffee</i>			
11:30 - 13:00	Martin Scheringer (ETH, Zürich)	Introduction to environmental fate modeling of persistent toxic substances		
13:00 - 14:00	<i>Break - lunch</i>			
14:00 - 15:00	Luděk Bláha	Introduction to ecotoxicology		
15:00 – 16:30	Ivan Holoubek	Introduction to Risk Assessment		
16:30 - 17:30	<i>Coffee + Refreshments / pizza</i>			
18:30 - 20:00	<i>Guided tour to City of Brno</i>			
Tuesday, 16/06/2015				
University Campus Bohunice (UKB), building A29-RECETOX, lecture room RCX 1, 2nd floor				
Part: Global management of chemicals (group A + B)				
9:00 - 10:30	Katarina Magulová	Global agenda to prevent and control releases of toxic contaminants in the environment		
10:30 – 11:00	<i>Break – coffee</i>			
Group A			Group B	
UKB, A29 - room RCX1, 2nd floor			UKB, A29 - room RCX2, 3rd floor	
Two day special focus on toxic cyanobacterial blooms			GMP - Global Monitoring Plan	
11:00 - 11:15	Luděk Bláha	Introduction & problem definition	11:00 - 12:00 Kateřina Šebková	Introduction to Global Monitoring Plan - legal
11:15 - 12:15	Bas Ibelings	Ecosystem and		

	(University of Geneva, CH)	ecological consequences		background, decisions and guidelines
12:15 - 13:15	Jussi Meriluoto (Abo University, FI)	Cyanobacterial toxins	12:00 – 13:00 Kateřina Šebková	Global Monitoring Plan - actors, procedures and work plan
13:15 - 14:00	<i>Break - lunch</i>			
14:00 - 15:15	Zorica Svircev (University Novi Sad, RS)	Health issues and management options	14:00 – 15:30 Kateřina Šebková	Effectiveness evaluation - components, timeline and needs wrap up of the session
15:15 – 16:30	Blahoslav Maršálek (Czech Academy of Sciences)	Toxic blooms prevention and remediation, Brno-reservoir case study	15:30 – 16:00	<i>Break</i>
			16:00 – 16:30 Jiří Kalina	Statistical Processing of Environmental Data – Available Methods
16:30 – 17:00	Luděk Bláha	* Ecotoxicology of water blooms * wrap up of the day	16:30 – 17:00 Jiří Kalina	Environmental Data – Trend Analysis
17:00	<i>Coffee, end of the day</i>			
19:30	<i>Free evening</i>			
Wednesday, 17/06/2015				
	Group A		Group B	
	Field trip		UKB, A29 - room RCX2, 3rd floor	
	Two day special focus on toxic cyanobacterial blooms		GMP - Global Monitoring Plan	
9:00 – 12:00	Field trip to reservoir affected by water blooms		9:00 – 9:20 Zdenka Bednářová	GENASIS
			9:20 – 9:40 Jakub Gregor	GMP – Data sources
			9:40 – 10:10 Jakub Gregor	GMP1 – Data management
			10:10 – 10:30 Jakub Gregor	GMP2 – Data collection
			10:30 – 11:00	<i>Break - coffee</i>
			11:00 – 11:20 Jakub Gregor	GMP Visualization
			11:20 – 12:00 Jakub Gregor	Hands-on: GMP data browser
12:00 - 13:00	<i>Break - lunch</i>			
	UKB, A29 - room RCX1, 2nd floor		UKB, A29 - room RCX2, 3rd floor	
13:00 – 13:30	tbs	Introduction to practical exercises	13:00 – 13:30 Jakub Gregor/ Zdenka Bednářová	Data browser - discussion
13:30-14:30	Laboratory exercises - assessment of cyanobacteria and their toxins		13:30 – 14:30 Jakub Gregor/	Practical examples, cases and Q/A

	Luděk Bláha (moderating) - Workshop - model case study	Zdenka Bednářová	session
14:30 – 15:00	<i>Break - coffee</i>	14:30 – 15:00	<i>Break - coffee</i>
15:00 – 17:30	Laboratory exercises - assessment of cyanobacteria and their toxins Luděk Bláha (moderating) - Workshop - model case study	15:00 – 17:00 Petra Příbylová Roman Prokeš	Passive sampling
17:30	Closing of special topic "Toxic blooms"		
19:00 – 23:00	<i>Social programme/Official "dinner"</i>		
Thursday, 18/06/2015			
University Campus Bohunice (UKB), building A29-RECETOX, lecture room RCX 1, 2nd floor			
(Group A + B)			
9:00 - 10:30	Jana Klánová	Sampling and environmental analysis	
10:30-10:45	<i>Break - coffee</i>		
10:45-11:45	Jakub Hofman and Klára Hilscherová	Ecotoxicological bioassays	
11:45-12:00	tbs	Introduction to laboratory exercises from environmental chemistry and ecotoxicology	
12:00-13:00	<i>Break - lunch</i>		
13:00-15:00	Laboratory exercises – Environmental chemistry and Ecotoxicology		
15:00 – 15:30	<i>Break - coffee</i>		
15:30 – 18:00	Laboratory exercises – Environmental chemistry and Ecotoxicology		
	<i>Free evening</i>		
Friday, 19/06/2015			
Field trip (Group A + B)			
Visit to the Košetice observatory			
09:00	Departure to Košetice		
11:00 – 13:00	Visit to Košetice observatory		
14:00 - 15:30	Lunch at the Kocanda hotel/Želiv		
16:00	Departure from Želiv		
18:00	Back in Brno		
	<i>Free evening</i>		
Saturday, 20/06/2015			
(Group A + B)			
University Campus Bohunice (UKB), building A29-RECETOX lecture room RCX 2 (computer room) - 3rd floor			
	<i>morning coffee</i>		
10:00 - 11:30	Ondřej Sářka	Visualization of environmental data - use of Geographical Information Systems (GIS)	
11:30-12:00	(TBS -eg Luděk Bláha)	(TBS) Selected future topics and challenges in environmental chemistry and ecotoxicology	
12:00 - 12:30	Certificates of attendance, End of the summer school		
12:30	Lunch and farewell <i>("take away" package)</i>		