Feedback on a EUROFLEETS training course

MSc. Biol., PhD student
Ieva Putna

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About me...

Study experience

Institution: University of Latvia

Faculty of Biology

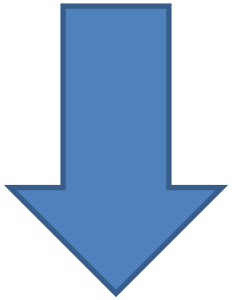
Department of Hydrobiology

Title of research thesis (from 2010): Biologically treated municipal and industrial waste water ecotoxicological effect on hydrobiont development.

MSc. (2008 – 2010) Toxicity of municipal and industrial waste waters after treatment in biological waste water treatment plants

BSc. (2005 – 2008) Toxicity determination of the glass ceramic composite material using *Daphnia magna* eco-toxicity test

University of Latvia & Marine research



Latvian Institute of Aquatic Ecology

Experimental Hydrobiology

Marine Monitoring

Professional experience

- Since 2010 Latvian Institute of Aquatic Ecology, Department of Experimental hydrobiology, research assistant
- 2007-2010: Latvian Institute of Aquatic Ecology, Department of Experimental hydrobiology, laboratory assistant

Cooporation with:

- Riga Technical University, Faculty of Materials Science and Applied Chemistry (Bachelor thesis)
- Riga Technical University, Faculty of Power and Electrical Engineering, Institute of Environmental Protection and Heating Systems (PhD thesis consulting and experiments)

Connection to project EUROFLEETS

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Ship-based Training for PhD Students of Marine Related Sciences

«Practical skills in oceanography: equipment and data processing»

Organized by the EUROFLEETS project, Doctoral School of Earth Sciences and Ecology, and Marine Systems Institute at Tallinn University of Technology

Held in Tallinn, Estonia,

July 6-10, 2011 onboard the research vessel SALME

The aim of the trainings..

- to enable PhD students to acquire the advanced practical skills in oceanography necessary to design and conduct multidisciplinary marine research – to study interrelated physical, chemical and biological processes with a focus on phytoplankton dynamics, specifically:
  - Practical skills to conduct oceanographic measurements
  - Methods for phytoplankton analyses (using FlowCAM and Phyto-PAM)
- Training included survey design and measurements using autonomous systems and adaptive sampling onboard a research vessel.

The trainings contained :

- introductory lectures
- exercises to design and plan the field measurements taking into account the available near real-time data from autonomous systems
- two days of surveys onboard the research vessel (deployment and operation of equipment, sample collection and onboard sample processing, using e.g. FlowCAM and Phyto-PAM, data acquisition and preliminary processing)
- post-cruise sample analyses in an onshore laboratory
- processing, analysing and integration of data
- preparation of a study report.

The training ran over 5 days and consisted of two days of ship-based training and the remaining shore-based.

My aims and feedback of the trainings

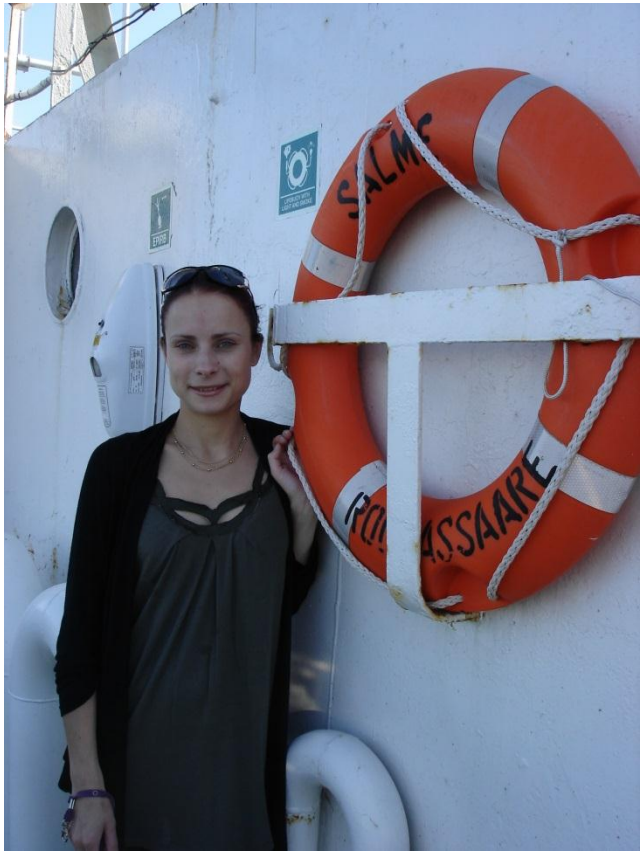
- Knowledge and Experience in planning of sea research:
  - Main factors that it is necessary to take into account in going on the sea – designing, planning and conducting multidisciplinary marine research
  - necessary equipment
  - data processing onboard of research vessel
- practical skills onboard research vessel
  - sampling , sample preservation and preparation for further analysis
  - data processing
- Data analyzing

Overall aim – Baltic Sea marine zooplankton/zoobenthos species isolation for laboratory culturing in order to detect ecotoxicological effect of pollution (e.g. waste water)

→ PhD thesis

As a result…

- Owing to my practical skills acquired in the EUROFLEETS training courses my candidature was approved by leader of LHEI to another EUROFLEETS project – CIPEC (Complex Investigation of Pelagic-benthic Ecosystem Interaction)
- Participated in two research cruises (in August and October of 2012) in the area of Gulf of Riga and collected crustaceans (amphipods) and sediments for my research work



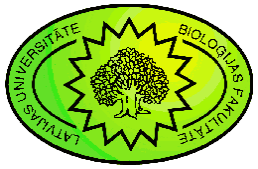
Future plans

- Continue marine zooplankton/zoobenthos research specializing in ecotoxicological studies of water pollution impact determination because in this sensitive ecosystem like Baltic Sea it is important to have local species investigations:
  - Existing samples and organisms
  - Waste water impact determination in different levels (organism, next generation, tissue, enzyme)
  - If possible – samples from open Baltic Sea of Latvian territorial waters

Eurofleets

SEVENTH FRAMEWORK PROGRAMME

Thank you for attention!



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