

Summer School

ADAPTATION TO GLOBAL CHANGE

CHALLENGES FOR RESEARCH AND ECOSYSTEM MANAGEMENT

Thurnau / Bayreuth - September 7th to 11th 2009



This summer school at the University of Bayreuth in cooperation with the University of Applied Sciences of Eberswalde will concentrate on the ecological and societal consequences of Global Change at regional scales.

We will highlight and discuss research gaps and identify consequences for the management of landscapes.

We cordially invite you to the first joint summer school that brings you in contact with students and professors of two German study programmes that focus on global change issues: 'Global Change Management' (offered by the University of Applied Science of Eberswalde) and 'Global Change Ecology' within the Elite Network of Bavaria (offered jointly by the Universities of Bayreuth, Augsburg and Würzburg).

The summer school will take place from **September 7th to 11th 2009** in Schloss Thurnau close to Bayreuth. Excursions will be organized to meet practitioners and scientists.

Global Change has an increasing impact on various sectors and parts of society. We will offer the opportunity to share the debate about research needs and challenges, identify gaps of knowledge and discuss how to approach these. Methodological developments will be demonstrated, recent findings will be presented. Students come in touch with global scenarios, simulations and prognoses and will be asked to develop critical but well based positions. Possible and probable responses of organisms and ecosystems to global climate change will be worked out for natural and semi-natural ecosystems.

However, there is a gap between knowing and acting. The implied changes don't find their way to the decision makers consequently. Professionals in the field of natural resource management are aware of the challenges that are ahead of us. Certainly there are few institutional arrangements to include adaptation in planning and decision making. There is thus urgent need to integrate adaptation strategies in the natural resource governance.

Professors that are engaged in the field of adaptation research from the University of Bayreuth and the University of Applied Science of Eberswalde will navigate the students through this week. They are ambitious to combine questions and solutions in global change research with the development of adaptation and management strategies in practice. Experts from practice and application (forestry, nature conservation, agriculture, water management, tourism) are integrated into the discussion processes of this summer school. Students will meet the challenge to develop positions and to defend these within the scope of debates between working groups.

As a special incentive we like to mention the **2009 GfÖ congress**, which is convened in Bayreuth in the week following this summer school. You are invited to take part at this conference, as well. For more information please visit: bayceer.uni-bayreuth.de/gfoe2009/

After this week students will be capable to judge scientific results based on most recent findings and developments of knowledge. They will be able to evaluate practical approaches to cope with the ecological consequences of climate change. In addition, students will have developed an individual and overarching position on the necessity and feasibility of adaptation strategies in various fields of natural resource management that are of societal relevance.

Experts for contributions and field trips in alphabetical order

Prof. Dr. Carl Beierkuhnlein, University of Bayreuth

Prof. Dr. Andreas Bolte, Federal Research Institute
for Rural Areas, Forestry and Fisheries

FD Winfried Drexler, Bavarian Agency for Forests
and Forestry, Weihenstephan

Friedrich/ Komischke, LfU
Environmental Agency, Hof

Prof. Dr. Pierre Ibisch, University of Applied
Sciences Eberswalde

Prof. Dr. Jucundus Jacobeit, University of
Augsburg

Prof. Dr. Anke Jentsch, University of Koblenz-
Landau

Prof. Dr. Thomas Köllner, University of Bayreuth

Dr. Andreas Marx, Helmholtz Centre for
Environmental Research, Leipzig

Dr. Harald Morscheid, LfU Environmental Agency,
Hof

Prof. Dr. Detlef Müller-Mahn, University of
Bayreuth

Prof. Dr. Thomas Nauss, University of Bayreuth

Dr. Herbert Rebhan, Administration for Nature
Conservation, Oberfranken

Prof. Dr. Björn Reineking, University of Bayreuth

Thomas Spencer, Germanwatch

PD Dr. Gian-Reto Walther, University of Bayreuth

Prof. Dr. Martin Welp, University of Applied
Sciences Eberswalde

Location:

Castle of Thurnau close to Bayreuth,
Excursions to Franconian Landscapes
connecting Research and Application.



Fees:

300 € including participation in all course activities, extensive training materials, field trips during the course, full food and accommodation. We will not be able to cover your travel expenses.

***This summer school is open to M.Sc. and Ph.D. students and alumni
from all scientific fields related to global change.***

Application to summerschool@global-change-ecology.de

Deadline for application: 15.08.2009

Schedule for Talks & Workshops (WS):

	07.09.2009	08.09.2009	09.09.2009	10.09.2009	11.09.2009
	Ecological Adaptation	Ecological Adaptation	Field Trip	Adaptation Management	Adaptation Management
08:30	Prof. Dr. Carl Beierkuhnlein UBT Prof. Dr. Martin Welp, FHE: Introduction and Philosophy of the Summerschool	Prof. Dr. Björn Reineking UBT Modelling Ecosystem Response and Adaptation	<p>Field Trip and Discussions On-site with Researchers</p> <p>Part A: Ecosystem Manipulation Experiments</p> <p>Part B: Biodiversity Loss and Adaptation Theory</p>	Prof. Dr. Detlef Müller-Mahn, UBTClimat Change Discourse with focus to developing countries	Prof. Dr. Martin Welp, UASE Vulnerability and adaptive capacity
09:00	What means natural Adaptation - Response, Evolution or Plasticity?	Modelling Approaches, Limits and Philosophies		Definitions, Concepts and Approaches to Adaptation and Climate Change	Specific Threats and Stakeholder Dialogues in Coastal Areas
10:15	Coffee-Break	Coffee-Break		Coffee-Break	Coffee-Break
10:45	Prof. Dr. Thomas Nauss UBT: Problems of Climate Scenarios/ Adaptation Strategies	Dr. Andreas Marx, UFZ: Adaption to Climate Change - Conflicts and Synergies		Prof. Dr. Andreas Bolte; vTI Adaptive forest management	Friedrich/ Komischke, LfU Water Ressources Management in Face of Climate Change
11:15	Integrative Environmental Modelling	Aims and Restrictions in Ecological Models		Forests and climate change	Water Ressources and Catchments
12:30	Lunch	Lunch	Picnic in the Field	Lunch	Lunch
14:00	PD Dr. Gian-Reto Walther UBT Trends in Organismic Response from Phenology to Range Shifts	Prof. Jacundus Jacobeit, UA A Changing Climate: the Risks indicated in the Climate System	<p>Field Trip and Discussions On-site with Practitioners</p> <p>Part C: Climatic Hazards in Forestry and Coping Strategies</p> <p>Part D: Adaptation Strategies in Conservation and Restoration Projects</p>	Prof. Dr. Pierre Ibisch, UASE Nature Conservation under Climate Change: from Non-knowledge to Action	Thomas Spencer, GW 'REDD': Role of Forests in Current Climate Negotiations
14:30	Bioclimatic Responses	Identifying Risks in Climate Research		Tools for adaptive management	Political and Administrative Strategies
15:30	Coffee-Break	Coffee-Break		Coffee-Break	Coffee-Break
16:00	Prof. Dr. Anke Jentsch, UKL Disturbances, Dynamics and Event Ecology	FD Winfried Drexler, LWF Forest Adaptation Strategies		UASE Adaptation in Mountainous Landscapes	Prof. Dr. Thomas Köllner, UBT Adapting Ecosystem Service Instruments
16:30	Effects of Extreme Climatic Events	Adaptation in Forest Ecosystems		Mountainous Landscapes	Evaluating Ecological Services
17:30	Resumée Day 1: Fundamental Processes	Resumée Day 2: Linking Basic Research and the Real World	Resumée Day 3: Societal Approaches	Resumée and Podium of the School and Outlook	
19:00	Dinner	Dinner	Franconian Beer-Garden	Dinner	Dinner
20:00	Icebreaker	Cultural Event		Come Together	End

UBT: University of Bayreuth, UASE: University of Applied Science Eberswalde, UKL: University of Klagenfurt, UA: University of Augsburg, LWF: Bavarian Agency for Forests and Forestry, vTI: Federal Research Institute for Rural Areas, Forestry & Fisheries, GW: Germanwatch