







## **European BfN/ENCA conference**

## **Biodiversity and Health in the Face of Climate Change**

### 27. - 29. June 2017 in Bonn/Germany

### **Programme**

	TUESDAY (27.06.2017) SCIENCE
8:00 - 18:00	Registration - Foyer
	The Nexus of Biodiversity, Health and Climate Change
9:00	Introduction and Opening Beate Jessel (President, Federal Agency for Nature Conservation - BfN, Germany)
	<b>Chair:</b> Horst Korn (Head of Division International Nature Conservation, Federal Agency for Nature Conservation - BfN, Germany)
9:20	Welcome and update from ENCA Ruth Waters (Natural England / Climate change interest group European Network of Heads of Nature Conservation Agencies - ENCA, UK)
9:25	Welcome address from WHO  Elizabet Paunovic (Head of Office, European Centre for Environment and Health, World Health Organization (WHO) Regional Office for Europe, Germany)
9:30	Enhancing Europe's natural capital benefit to human health and climate change  Ronan Uhel (Head of Programme "Natural Systems and Sustainability", European Environment Agency - EEA, Denmark)
10:00	Nature and health – A psychological perspective Terry Hartig (Upsala University, Sweden)
10:30	Coffee & Tea
	Chair: Aletta Bonn (Helmholtz Centre for Environmental Research-UFZ and German Centre of Integrative Biodiversity Research - iDiv, Germany)
11:00	Biodiversity and health – Implications for conservation Kevin Gaston (University of Exeter, UK)
11:30	Linking landscape planning and health – Green space and quality of life Catharine Ward Thompson (University of Edinburgh, UK)
12:00	Discussion













12:30	Lunch / Press Conference / Poster Exhibition, without presenters
	Physical and psychological effects
14:00	Mosquito borne diseases and global changes Ruth Müller (Chief Manager of the GM mosquitoes confined release facilities PoloGGB, Italy, and Head of the Department Environmental Toxicology and Medical Entomology University of Frankfurt, Germany)
14:20	Environmental immunology – Allergies and chronic diseases Stephanie Gilles-Stein (University clinic, Augsburg, Germany)
14:40	Urban nature, health and climate change Sarah Lindley (The University of Manchester, Manchester, UK)
15:00	Phenotype: Positive health effects on the natural outdoor environment in typical populations of different regions in Europe Roderick Lawrence (Director of the Global Environmental Policy Program University Geneva; visiting professor at the United Nations University's International Institute for Global Health)
15:20	Discussion
15:30	Coffee & Tea
16:00	Effects of green spaces on children Payam Dadvand (IS Global, Spain)
16:20	Happiness in Green Environments Sjerp de Vries (Wageningen Environmental Research (Alterra), The Netherlands)
	Social effects and implications for planning
16:40	Nature and Health inequalities in the face of climate change Richard Mitchell (Institute for Health and Wellbeing / CRESH, Glasgow University)
17:00	Resilience Management for Healthy Cities in a Changing Climate Thomas Elmqvist (Stockholm Resilience Centre, Sweden)
17:20	Synergies and Trade-offs of Conservation and Health: Implications for sustainable (urban) Health Planning Thomas Claßen (NRW Centre for Health (Germany), Section "Health assessments and forecasting")
17:40	Discussion
18:00	Break
18:15	Open Event / Welcome Thomas Graner (Deputy of the President of the Federal Agency for Nature Conservation (BfN), Germany)
	Public evening lecture: Public perceptions and engagement with climate change Wouter Poortinga (Cardiff University, UK)
19:00	Conference buffet, evening reception hosted by BfN













	WEDNESDAY (28.06.2017) PRACTICE / IMPLEMENTATION
8:00 - 8:45	Morning Group Walk (optional) Led group walk with Melissa Marselle. Please meet in conference venue foyer at 7.55.
8:00 - 18:00	Registration - Foyer
9:00	Introduction and review of day 1 Chair: Horst Korn (Head of Division International Nature Conservation, Federal Agency for Nature Conservation - BfN, Germany)
	Nature-based solutions to improve human health in a changing climate – Practice examples
9:05	Urban green spaces and health – launching a brief for action  Elizabet Paunovic (Head of Office, European Centre for Environment and Health, World Health  Organization (WHO) Regional Office for Europe)
9:35	The healthy cities network Germany  Karsten Mankowski (Political chair of the German National Healthy Cities Network of healthy cities, Rhein-Kreis Neuss Umwelt- und Gesundheitsamt, Grevenbroich, Germany)
10:05	Interactive session plan  Horst Korn (Head of Division International Nature Conservation, Federal Agency for Nature Conservation - BfN, Germany)
10:10	Coffee & Tea
	Biodiversity, Health and Climate Change – Opportunities, challenges and evidence gaps
10:40	Interactive Parallel Sessions - SLOT 1 For details see below
	<ul> <li>Session 1 Biodiversity or Green Space? Evidence for contributions to health in a changing climate         Chair: Rebecca Lovell (Defra Research Fellow on the Natural Environment and Human Health, European Centre for Environment and Human Health, University of Exeter Medical School, UK)</li> <li>Session 2 Health and protected areas in a changing climate         Chair: Veikko Virkkunen (Metsähallitus, Parks &amp; Wildlife Finland (P&amp;WF))</li> <li>Session 3 Linking Initiatives in biodiversity, health, climate change in policy and practice         Chair: Hans Keune (Belgian Biodiversity Platform, The Research Institute for Nature and Forest - INBO, Belgium)</li> <li>Session 4 The benefits of green space for enhancing human health – Lessons learned from urban interventions         Chair: Matthias Braubach (World Health Organization Regional Office for Europe)</li> </ul>













12:40	Lunch / Market place (Poster Session with Presenters)
14:30	Interactive Parallel Sessions - SLOT 2
	For details see below
	Session 5 Psychological effects of nature and biodiversity on human health and wellbeing     Chair: Darto Martons (Charges) de University for Systemath Days (annual Company)
	Chair: Dörte Martens (Eberswalde University for Sustainable Development, Germany)
	• Session 6 Allergenic plants and vector borne disease – Relevance to human health in a changing climate
	Chair: Regina Treudler (University of Leipzig, Germany)
	Session 7 Nature-based solutions for climate change adaptation and their role in fostering health and socio-environmental equity
	Chair: Melissa Marselle (German Centre of Integrative Biodiversity Research – iDiv)
	<ul> <li>Session 8 Planning and managing urban green spaces for health and biodiversity in a changing climate – Concepts, experiences, practice</li> </ul>
	Chair: Stefan Heiland (Technische Universität Berlin, Germany)
16:30	Coffee & Tea
17:00 - 18:30	Plenum Summary Main lecture Hall
	Chair: Horst Korn (Head of Division International Nature Conservation, Federal Agency for Nature Conservation - BfN, Germany)
19:00	Conference dinner













	THURSDAY (29.06.2017) POLICY AND BUSINESS
8:00 - 8:45	Morning Group Walk (optional) Led group walk with Melissa Marselle. Please meet in conference venue foyer at 7:55.
8:00 - 12:00	Registration - Foyer
9:00	Introduction and review of day 2
	<b>Chair</b> : Horst Korn (Head of Division International Nature Conservation, Federal Agency for Nature Conservation - BfN, Germany)
	Biodiversity, Health and Climate Change - current processes and future perspectives
9:10	Valuing Nature and Benefits to Health – The H2020 health societal challenge Birgit de Boissezon (European Commission, DG Research and Innovation, Head of Unit "Sustainable Management of Natural Resources")
9:30	Nature's contribution to human health and well-being in a changing climate Stefan Leiner (European Commission, DG Environment, Head of Unit "Biodiversity")
9:50	Connecting Global Priorities: Biodiversity and Human Health Cristina Romanelli (Secretariat of the Convention on Biological Diversity, CBD)
10:10	Nature, health and a new urban generation – Unlocking opportunities for nature-based solutions in a changing climate  Luc Bas (Director of the IUCN European Regional Office)
10:40	Coffee & Tea
11:10	Back to the Future – Parks as Natural Health Centres Carol Ritchie (Executive Director, EUROPARC Federation)
11:40	The Health and Social Benefits of Nature Conservation Areas  Patrick ten Brinck (Head of Green Economy Programme, Director of Brussels Office, Institute for European Environmental Policy, IEEP)
12:00	Panel Discussion Moderator: Horst Korn (Head of Division International Nature Conservation, Federal Agency for Nature Conservation - BfN, Germany)
12:50	The way forward and closing Beate Jessel (President, Federal Agency for Nature Conservation - BfN, Germany)
13:00	Farewell
Afternoon	Meeting of the ENCA interest group on climate change (members only)













#### **DETAILED PROGRAMME - Interactive Parallel Sessions SLOT 1**

WEDNESDAY (28.06.2017) Morning sessions (10:40 - 12:40)

Session 1 - Main Lecture Hall "Hörsaal"

**Biodiversity or Green Space? Evidence for** contributions to health in a changing climate

Marcus Hedblom, Swedish University of Agricultural Sciences: Urban woodlands and their importance for biodiversity and human well-being

Assaf Shwartz, Technion - Israel Institute of Technology: One size does not fit all - the complex relationship between wellbeing and biodiversity

Leonie Fischer, Technische Universität Berlin: People across Europe like urban biodiversity

Ruth Waters, Natural England: Getting Outdoors: What motivates people?

Chair:

Rebecca Lovell

School, UK)

(European Centre for Environment and Human Health, University of Exeter Medical

Session 2 - Seminar Room 3.01/3.03

Health and protected areas in a changing climate

Chair:

Veikko Virkkunen

(Metsähallitus, NHS Ostrobothnia Regional Unit / Europark Federation, Finland)

Neele Larondelle, Europarc Deutschland: Connecting people with nature: The National Nature Landscapes of Germany

**Kerstin Ensinger,** Schwarzwald Nationalpark / Black Forest National Park, Germany: The health benefits of experiencing "wilderness" in the Black Forest National Park

Silvestre García de Jalón, BC3 Research: Exposure to green areas: Modelling health benefits in a context of study heterogeneity

Albert Bach, Institute of Environmental Science and Technology of the Autonomous University of Barcelona: Forest and human health: A new approach for forest management?

Session 3 - Seminar Room 3.05/3.07

Linking Initiatives in biodiversity, health, climate change in policy and practice

Chair:

**Hans Keune** 

(Belgian Biodiversity Platform, The Research Institute for Nature and Forest - INBO, Belgium)

Dave Stone, Natural England: Climate change, human health and biodiversity: How a socio-ecological conceptualisation of the challenge can provide mutually supportive integrated solutions.

Josipa Habuš, Faculty of Veterinary Medicine of the University of Zagreb: Network for Evaluation of One Health (NEOH): Developing new methodologies for quantitative evaluation of One Health activities

Julie Garnier, Odyssey Conservation Trust: Implementing a One Health approach in transfrontier conservation areas will help build resilience to climate change

Doreen Montag, Queen Mary University of London: Ecosystem services and their impact on peoples' health: A needs-based approach to health assessment

2-minute 'speed presentations' of posters from:

- Kerstin Friesenbichler, Der Umweltdachverband / The Environmental Umbrella Organisation, Austria:
- Lieve Janssens, Agency for Sustainable Environment and Nature Policy, Belgium;
- Snezana Jovanovic, WHO Collaborating Centre for Housing and Health; and
- **Hans Keune**, Belgian Biodiversity Platform, The Research Institute for Nature and Forest (INBO);
- **An Van Nieuwenhuyse**, Scientific Institute of Public Health, Belgium

Session 4 - Media Room "Medienraum"

The benefits of green space for enhancing human health - Lessons learned from urban interventions

Matthias Braubach, WHO European Centre for Environment and Health: Benefits of urban green space interventions: lessons from the field

Kate Sheldon, Trees for Cities, UK: Edible Playgrounds by Trees for Cities

**Matthias Braubach** 

(World Health Organization Regional Office

for Europe)

Jochem O. Klompmaker, National Institute for Public Health and the Environment, The Netherlands (RIVM): Associations of green space with cardio-metabolic disease.

Jana Verboom, Wageningen University and Research, The Netherlands: Can a neighbourhood greening intervention improve the health and wellbeing of older residents?













#### **DETAILED PROGRAMME - Interactive Parallel Sessions SLOT 2**

WEDNESDAY (28.06.2017) Afternoon sessions (14:30 - 16:30)

#### Session 5 - Main Lecture Hall "Hörsaal"

Psychological effects of nature and biodiversity on human health and wellbeing

**Dörte Martens,** *Eberswalde University for Sustainable Development, Germany*: Nature experience areas providing biodiversity and childrens' quality of life – compatible or contradictory aims?

Jens Kolbe, Technische Universität Berlin: The Greener, the Happier? The Effects of Urban Land Use on Residential Well-Being.

#### Chair: Dörte Martens

(Eberswalde University for Sustainable Development, Germany)

**Liqing Zhang,** *National University of Singapore*: A Conceptual Framework to Better Understand the Dose-Response Relationships between Urban Green Spaces and Health

**Barbara Livoreil,** Foundation for Research on Biodiversity, France (FRB): An assessment from EKLIPSE: What types of nature and characteristics of green and blue spaces significantly impact mental health and well-being?

#### Session 6 - Seminar Room 3.01/3.03

Allergenic plants and vector borne diseases – Relevance to human health in a changing climate **Vladimir Kendrovski,** *WHO European Centre for Environment and Health*: European WHO operational framework on climate change, health and vector-borne diseases

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Astrid Kleber, Ministry for the Environment, Energy, Food and Forestry of the Rhineland Palatinate,
Germany: Assessment of health risks from allergenic plants, animals and vector borne diseases in
Rhineland-Palatinate under climate change conditions.

Boris Schröder-Esselbach, Technische Universität Brauschweig: Ticks and the city

**Stefan Schindler**, *Environment Agency*, *Austria*: Alien species and human health impacts: Evidence syntheses and the role of climate change

#### Chair:

Regina Treudler

(University of Leipzig, Germany)

#### Session 7 - Seminar Room 3.05/3.07

Nature-based solutions for climate change adaptation and their role in fostering health and socio-environmental equity

#### Chair:

#### Melissa Marselle

(German Centre of Integrative Biodiversity Research – iDiv) **Conor Kretsch,** *COHAB (Co-operation On Health and Biodiversity) Initiative, Ireland*: Far beyond resilience: Response, relief and recovery in a changing climate

Minka Aduse-Poku, University of Cologne: Potential of Green (Ivy-) Walls With Respect To Temperature-Impact, CO2-Assimilation, Reduction of Fine Dust And Of Nitrous Oxides (NOx)

**Chris Skelly,** *Public Health Dorset and University of Southampton*: Urban green space interventions: can the science of microbiomes be used to write a global prevention at scale prescription?

**Tatiana Minayeva,** Wetlands International: Peatland restoration as a vital means for prevention of peat fires

#### Session 8 - Media Room "Medienraum"

Planning and managing urban green spaces for health and biodiversity in a changing climate – Concepts, experiences, practice

#### Chair:

#### Stefan Heiland

(Technische Universität Berlin, Germany)

**Sandra Boekhold**, *National Institute for Public Health and the Environment, The Netherlands (RIVM):* City deal on valuing green and water in cities: integration of health and other benefits of nature-based solutions in urban planning

**Petra Schneider**, *University of Applied Sciences Magdeburg*: Bioclimatic Risk Assessment as Base for Resilient Urban Climate Adaptation Strategies: Case Study for the City of Chemnitz, Germany

**Rebecca Jefferson**, *Royal Society for the Protection of Birds (RSPB):* Biodiversity, human health and climate change at the RSPB

**Hannah Roberts,** *University of Leeds:* The influence of park features on park satisfaction in a multi-ethnic, deprived urban area













### Interactive parallel sessions – Leading questions for discussion

#### **WEDNESDAY (28 June 2017) MORNING SESSIONS (10:40 – 12:40)**

#### SESSION 1 - Biodiversity or green space? Evidence for contribution to health in a changing climate

Chair: Rebecca Lovell (Defra Research Fellow on the Natural Environment and Human Health, European Centre for Environment and Human Health, University of Exeter Medical School, UK)

- 1. What is the actual contribution of biodiversity to health?
- 2. How can we assess the health impacts of biodiversity within a changing climate?
- 3. How can this help inform conservation and health management and policy development?

#### SESSION 2 - Health and protected areas in a changing climate

Chair: Veikko Virkkunen (Metsähallitus, NHS Ostrobothnia Regional Unit / Europark Federation, Finland)

- 1. What is the contribution of protected areas and biodiversity on health and well-being on individual, community and society levels?
- 2. How can the protected areas' benefits on health and well-being be measured, quantified and valued?
- 3. Which new programs help to connect people to parks to improve their health?

#### SESSION 3 - Linking initiatives in biodiversity, health, and climate change action in policy and practice

Chair: Hans Keune (The Research Institute for Nature and Forest (INBO), Belgium)

- 1. What is the role, and evidence, of health arguments in the debate around climate change action in relation to biodiversity?
- 2. What are the indicators to assess effectiveness of initiatives linking knowledge, policy and practice?
- 3. What are good examples of linking knowledge, policy and practice why do they work or not?

## SESSION 4 - The benefits of green space for enhancing human health – lessons learned from urban interventions

Chair: Matthias Braubach (World Health Organization Regional Office for Europe)

- 1. What actions are implemented on the local level to improve access to green spaces, and what are the lessons learned?
- 2. What are the environmental impacts and health benefits of urban green space actions? How may they change in a changing climate?
- 3. How to measure impacts of urban green spaces and how can unintended consequences be identified and avoided?













#### **WEDNESDAY (28 June 2017) AFTERNOON SESSIONS (14:30 – 16:30)**

#### SESSION 5 - Psychological effects of nature and biodiversity on human health and well-being

Chair: Dörte Martens (Eberswalde University for Sustainable Development, Germany)

- 1. What are the psychological effects of urban and rural nature on human health and well-being?
- 2. How can we assess these changes and develop indicators and guidance for management and planning?
- 3. What nature-based solutions for climate change adaption can foster positive psychological health effects?

#### SESSION 6 - Allergenic plants and vector borne diseases - relevance to human health in a changing climate

Chair: Regina Treudler (University of Leipzig, Germany)

- 1. What are the effects of climate change on allergenic species and vector borne diseases?
- 2. How can the clinical and socio-economic effects of altered allergenic species and (re) appearance of vector borne diseases in Europe be measured?
- 3. How can epidemiological and self-reported health studies or other approaches inform management?

## SESSION 7 - Nature-based solutions for climate change adaptation and their role in fostering health and socio-environmental equity

Chair: Melissa Marselle (German Centre of Integrative Biodiversity Research - iDiv, Germany)

- 1. What is the evidence that nature-based solutions for climate change adaptation can foster human health and/or environmental justice?
- 2. How do existing case studies/projects measure the impact of nature-based solutions on health and/or environmental justice?
- 3. How can nature-based solutions be integrated into overarching municipal goals and strategies?

# SESSION 8 - Planning and managing urban green spaces for health and biodiversity in a changing climate – Concepts, experiences, practice

Chair: Stefan Heiland (Technische Universität Berlin, Germany)

- 1. How can health promotion be integrated into instruments of nature conservation and environmental planning (landscape planning, environmental assessments, management plans of nature reserves) in an urban context?
- 2. Which sectors and actors from administrations and civil society <u>have</u> to be involved into health-related planning processes and decisions? Which experiences exist so far?
- 3. Supporting biodiversity, health and climate change mitigation and adaptation: Which conflicts and synergies have to be considered? How could conflicts be minimized and synergies created?











