

PROGRAMME

09:00 – 10:00	REGISTRATION AND COFFEE / TEA
10:00 – 10:20	WELCOME AND INTRODUCTION BY CHAIR (Coenraad Krijger, IUCN NL, The Netherlands)
10:20 – 11:00	ECOLOGICAL THEORY AND CONSERVATION PRACTICE (Jaboury Ghazoul, Utrecht University, The Netherlands / ETH Zürich, Switzerland)
11:00 – 11:30	COFFEE / TEA
11:30 – 12:10	WHOLE GENOME SEQUENCING: PANACEA FOR CONSERVATION? (Robert Kraus, University of Konstanz / Max Planck Institute for Ornithology, Germany)
12:10 – 12:50	PREVENTING WILDLIFE CRIME WITH PROGRESS IN ECOLOGY AND TECHNOLOGY (Frank van Langevelde, Wageningen University, The Netherlands)
12:50 – 13:50	LUNCH
13:50 – 14:30	EVOLUTION IN GOVERNANCE OF CONSERVATION (Bart Geenen, WWF Netherlands, The Netherlands)
14:30 – 15:10	INNOVATIONS IN RESTORATION ECOLOGY: FORTRESS RESTORATION, OR A FLEXIBLE, ADAPTABLE APPROACH? (Eric Higgs, University of Victoria, Canada)
15:10 – 15:40	COFFEE / TEA
15:40 – 16:20	META-ANALYSIS AS A TOOL FOR REVEALING OVERARCHING PATTERNS (Marijke van Kuijk, Utrecht University, The Netherlands)
16:20 – 17:00	TOWARDS CONVIVIAL CONSERVATION: RADICAL IDEAS FOR SAVING NATURE IN THE ANTHROPOCENE (Bram Büscher, Wageningen University, The Netherlands)
17:00 – 18:00	WRAP-UP OF THE DAY, FOLLOWED BY DRINKS IN THE BAR

Innovation in Conservation

Fundamental science as a basis for sustainable conservation

Wednesday 29 November 2017

Conference Centre de Werelt
Westhofflaan 2, Lunteren, The Netherlands

ORGANISERS:

Dr Marijke van Kuijk (Utrecht University)
Dr Ignas Heitkönig (Wageningen University)
Dr Claudius van de Vijver (NERN)
Dr Lennart Suselbeek (NERN)

SUPPORTED BY:

Netherlands Ecological Research Network (NERN)
Future For Nature Academy
Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO)

ABSTRACTS

10:20 ECOLOGICAL THEORY AND CONSERVATION PRACTICE

Jaboury Ghazoul, Utrecht University / ETH Zürich

Ecology is replete with theories concerning how organisms interact with each other and their environment. These theories have guided conservation science, which in turn has provided frameworks for conservation planning. Yet conservation management and practice have not necessarily been well attuned to ecological theory. I will explore how ecological theories have been adopted by conservation practice, and whether theory has been able to improve conservation outcomes. Where conservation has failed, I ask whether this has been due to the failure to adequately embed ecological theory in conservation planning and management, or whether ecological theory itself is flawed with respect to its application to conservation objectives.

11:30 WHOLE GENOME SEQUENCING: PANACEA FOR CONSERVATION?

Robert Kraus, University of Konstanz / Max Planck Institute for Ornithology

The assembly instructions of every organism are encoded in its so-called genome. A genome, in principle, is comprised of just four letters: A, C, G, and T. These letters are abbreviations for chemical molecules that form the genetic code, known as deoxyribonucleic acid, or DNA. A mammalian genome consists of about three billion of these letters and knowledge on the “words”, “sentences”, “paragraphs” or “chapters” that are written out in genetic code. The study of DNA has unveiled unprecedented detail in understanding the molecular basis of an organism’s traits that are encoded in its genes. The technology to decode the DNA sequence of such genes has been developed in the 1970s with advances in throughput until the early 2000s. But in 2005 the game was changed by multiple new technologies and a new era began in which, in rapid steps, genomes of hundreds to thousands of plants and animals were fully sequenced. In ecology and evolution, advances based on these new types of data include disentangling the evolutionary history of many species or the understanding of the distribution of genetic diversity on multiple time and spatial scales. But what is the immediate consequence for conservation? Biodiversity and genomics are buzz words that frequently appear together when it comes to overarching hot topics in conservation. In my presentation I will give an overview on what genomes contain, how we read them, and how that has helped us so far when it comes to questions of nature conservation. I will further critically sketch out the current major developments and how they will change the current conservation genetics landscape in the next decade.

12:10 PREVENTING WILDLIFE CRIME WITH PROGRESS IN ECOLOGY AND TECHNOLOGY

Frank van Langevelde, Wageningen University

During the presentation, I will first discuss the findings of our ecological study on the response of large herbivores (zebra and wildebeest) after an encounter with their main predator (lion). These findings triggered us to think about using these large herbivores, that are widely abundant in tropical savannah areas, as indicator for disturbances such as poachers. I will present the first results of our field study in an African nature reserve where we test this idea by doing experiments. In these experiments, we mimic poachers and measure the movement response of the large herbivores. I will make clear that testing this idea was only possible due to the recent advances in technology that allowed us to measure the location of many animals simultaneously at relatively low costs. I will discuss that this proactive approach to prevent wildlife crime is urgently needed in combination with the reactive approaches that received a lot of attention to trace smuggling routes of wildlife products and arrest the criminals.

13:50 EVOLUTION IN GOVERNANCE OF CONSERVATION

Bart Geenen, WWF Netherlands

When involved in nature conservation we want to see actual results and changes on the ground. But if we do not address the drivers, like the major investments impacting on nature, our interventions might be in vain. It is a balancing act between long-term and sustained impact versus addressing urgent threats which directly lead to the extinction of certain species. Global warming is reshuffling the ranges of animals and plants around the world with profound consequences for humanity, according to major new scientific analysis. National parks probably need to shift or expand in future to accommodate species we want to protect. While we consider investing in the natural capital a better approach to enhance our resilience to (climate) changes, many climate change adaptations interventions achieve the opposite. Looking forward to share some of these challenges with you all.

14:30 INNOVATIONS IN RESTORATION ECOLOGY: FORTRESS RESTORATION, OR A FLEXIBLE, ADAPTABLE APPROACH?

Eric Higgs, University of Victoria

At the very moment when restoration is being adopted by agencies and organizations at all levels and finally beginning to realize the promise that early innovators once held for it, the challenges of climate change, species globalization, human well-being, and shifting values threaten some of restoration’s basic premises. One response is to draw a tight boundaries around acceptable practice, and allow other practices such as reclamation, rehabilitation, and designed ecosystems to pick up the slack. The other response is to open up restoration to include some of these diverse practices under the assumption that restoration is fundamentally about “doing right” by ecosystems. I will explore both pathways, and argue that we are best served by “flexible” rather than “fortress” restoration.

15:40 META-ANALYSIS AS A TOOL FOR REVEALING OVERARCHING PATTERNS

Marijke van Kuijk, Utrecht University

Conservation requires decisions on management and policy actions for which evidence on the effectiveness of interventions is needed. There is a growing amount of scientific information available that can be used to inform managers and policy-makers. However single studies often do not reveal overarching patterns in nature and may not always be suitable to predict the outcomes of conservation. Meta-analyses, if properly conducted, can be used as a tool to provide independent, unbiased and objective evidence to inform conservation interventions. Dissemination of results remains an important issue, and also the question to what extent conservation practitioners collate and review scientific evidence is valid.

16:20 TOWARDS CONVIVIAL CONSERVATION: RADICAL IDEAS FOR SAVING NATURE IN THE ANTHROPOCENE

Bram Büscher, Wageningen University

Saving nature has never been an easy or straightforward proposition. But the arrival of the Anthropocene seems to have upped the ante dramatically; the choices facing the conservation community have now become particularly stark. It is no surprise, therefore, that we have recently seen several radical proposals for reforming conservation and the rise of heated debates around them. ‘New’ or ‘Anthropocene’ conservation asserts that humans must take their anthropogenic domination of nonhuman processes seriously and manage them to maximize long-term sustainability and economic development. ‘Neoprotectionists’ aim to separate development from conservation and instead call (again) for a drastic expansion of protected areas. This presentation reflects on these radical conservation proposals and argues that both hold important seeds for necessary radical change but that each on its own contains untenable, even dangerous contradictions. Through analysis of these contradictions, I develop and propose an alternative way forward: ‘convivial conservation’.