

BOOK OF ABSTRACTS

- I. SESSION DESCRIPTION
- II. SESSION PROGRAM
- III. ABSTRACTS

I. SESSION DESCRIPTION

ID: T1d

Human–Nature Relations for transformative change: a holistic perspective

Hosts:

	Name	Organisation	E-mail
Host:	André Mascarenhas	ILPÖ – Institute of Landscape Planning and Ecology (Univ. Stuttgart)	andre.mascarenhas@ilpoe.uni-stuttgart.de
Co-host(s):	Nicolas Dendoncker Carla Washbourne	University of Namur University College London	nicolas.dendoncker@unamur.be c.washbourne@ucl.ac.uk

Abstract:

To assess the root causes of ecological degradation, it is important to consider different dimensions of human–nature relations. Those include, among others, worldviews, broad and specific values people hold towards nature (Pascual et al., 2023), direct and indirect interactions between people and nature (like visiting a park; Soga & Gaston, 2021), or the material and immaterial outcomes of such interactions (e.g. for physical and mental health, or sense of place; Díaz et al., 2018). However, considering the multiple dimensions of human–nature relations in a holistic way poses a major scientific challenge. Different dimensions have often been studied by different disciplines or research communities, using different concepts and frameworks. These concepts and frameworks – including ecosystem services (Daily, 1997), nature’s contributions to people (Díaz et al., 2018) multiple values of nature (Pascual et al., 2023), human–nature connection (Ives et al., 2017), nature connectedness (Zylstra et al., 2014) human–nature interactions (Soga & Gaston, 2021), among others – have varying levels of overlap. This creates issues with intangibility and incommensurability across and between frameworks (Chan et al., 2012). Relevant knowledge gaps persist in terms of how the different dimensions of human–nature relations and their interrelations are understood and recorded (for example how are



multiple values of nature related with human–nature interactions). Researchers are still devising strategies and gathering empirical data to deal with these challenges. For example, some have shown how embracing incommensurability can be beneficial for participatory sustainable landscape management (Allain & Salliou, 2022).

We argue that broadening ecosystem services research towards a more holistic human–nature relations perspective is an important condition for transformative change. Even though this comes with major scientific challenges, such a shift could contribute to the guiding vision of “One Planet, One Health”, as it promotes a relational notion of people and nature that goes beyond focusing on the benefits nature provides to humans. In this context, we welcome and encourage submissions interested in:

- new ways of conceptualising and analysing human–nature relations;
- how human–nature relations are (or have been) represented in policies;
- the multiple dimensions of human–nature relations;
- exploring relationships between those dimensions (even if submissions focus on more specific aspects of human–nature relations, e.g. different types of values);
- visions and scenarios of the future focussing on human–nature relations;
- and how those aspects are related to transformative change and sustainability.

Goals and objectives of the session:

We want to stimulate discussion and dialogue around the different dimensions of human–nature relations and how we can consider them holistically, in order to devise research approaches that can help advancing our knowledge on this topic.

Planned output / Deliverables:

Depending on the quality of the submissions received and the discussion during the session, a joint discussion paper or a special issue on the topic, as well as non–scientific outputs (e.g. blog entry) can be envisioned.

II. SESSION PROGRAM

Room: Expert Street 5

Date of session: 18th of November 2024

Time of session: 14:00–17:30

Timetable speakers

Time	First name	Surname	Organization	Title of presentation
16.10	Carla	Washbourne	University College London	Human–nature relations in the nitrogen cycle: insights from an overview of scientific literature
16.20	Julia	Diekämper	Museum für Naturkunde, Berlin.	Network Nature Knowledge: a more holistic human–nature relations perspective
16.30	Anastasia	Van Der Meer	Lund University and IUCN Commission on Ecosystem Management	Just Green Urban Transitions: Analysing Multispecies Justice in Mexico City in Urban Greening and Urban Nature Governance
17.00	Dominique	Ghijssels	University of Antwerp	Relational values of nature: Outgrowing anthropocentrism by enriching human–nature relationships?
17.10	Silvia	Rova	Ca' Foscari University of Venice	Exploring plural values and ecosystem services perceptions to enable transformative change in the Venice lagoon, Italy.
17.20	Jana	Schluens	Université du Québec en Outaouais (UQO)	About fish, farms, and fragility – a case study to enlighten human–nature relationships through a plural values assessment
17.30	Sarah	Nieß	ISOE – Institute for Social–Ecological Research; SBIK–F Senckenberg Biodiversity and Climate Research Center	Seeds of Change in Human–Insects Relations: Unfolding the Transformative Potential of a Gardening Intervention.



III.ABSTRACTS

first author is the presenting author unless indicated otherwise.

1. Relational values of nature: Outgrowing anthropocentrism by enriching human–nature relationships?

First author(s): Dominique Ghijssels

Affiliation: University of Antwerp

Contact: dominique.ghijssels@uantwerpen.be

Increasingly, science–policy–oriented publications discuss the potential of ‘relational values of nature’ to bolster future conservation related decision–making. This paper unravels two meanings of relational values and elaborates on how these may add to the toolkit of conservation. Firstly, it is explained how relational values are a third axiological category and compare to instrumental and intrinsic values assigned to nature. Secondly, it is clarified how relational values appear part of a shift that seeks to improve conservation decision–making processes by mapping and recognising the multiple ways of valuing nature people have developed over time. This would allow to more comprehensively capture the context–specific perspectives on human–nature relations. It is argued that these two meanings of relational values underscore the need not to conflate the questions of how to make valuation methods more socially inclusive with prescriptive questions of why we should protect nature. To illustrate this, this paper focuses on New Zealand conservation legislation that demonstrates how relational values, rooted in place–based indigenous knowledge and traditions, are coded into rights of nature law. Partially based on this it is argued that while social inclusiveness in conservation is important, this may still allow for anthropocentrically inspired thinking. Ultimately, it is concluded that the potential of relational values can be more fully realised by using them to offer prescriptive guidance to conservation decision–making and practice. However, to facilitate this, their embeddedness in a meaningful relationship with, and care and respect towards, nature needs to be emphasized and mainstreamed.

Keywords: Relational values, Intrinsic values, Anthropocentrism, Ecocentrism,

Rights for nature



2. Network Nature Knowledge: a more holistic human–nature relations perspective

First author(s): Julia Diekämper

Other author(s): Carolin Glahe

Affiliation: Museum für Naturkunde Berlin

Contact: carolin.glahe@mfn.berlin

Today more than ever, ecological, political and social changes require us to rethink cooperation. Necessary cultural change therefore undoubtedly needs trusting alliances. The production of this natural knowledge requires concepts that capture the ambivalence of the intrinsic openness of the sciences and offer them a structure. There is no lack of corresponding programmatic demands (European Commission, 2016). However, it is not enough to simply focus on academic research (e.g. replicability) or scientific communication (e.g. open access). Rather, it is crucial for the transfer and exchange of this natural knowledge to experiment with new forms of collaboration in a transparent and sustainable manner.

In order to venture thinking and testing new ways of acting, the Nature Knowledge Network at the Museum für Naturkunde Berlin is therefore being set up as an agile and innovative contact zone for various partners from the Berlin/Brandenburg (Germany) region. The aim of the network is to acquire and reflect on contemporary nature knowledge as a basis for shaping the world by taking up the challenge of science and research. This succeeds when innovative and flexible social practices and patterns of interpretation bring together different bodies of knowledge in a resonance space.

The talk will take place against the background of first experience of a new way of conceptualizing and analyzing human–nature relations in this network. In this context, the digital “Atlas of Natural Knowledge” will be presented as a way to sustainably collect different sources of knowledge. The Atlas of Natural Knowledge offers a digital infrastructure for methodological and content–related reflection processes. It documents, visualizes, analyses and makes accessible a collaboratively created common digital knowledge map as an imprint of social relations, discourses and practices. The atlas is therefore not a geographical compendium, but a cultural artefact that reflects the political, social and cultural relationships between the projects and their structures.

Keywords: transdisciplinarity, new work; nature knowledge; transfer



3. Seeds of Change in Human–Insects Relations: Unfolding the Transformative Potential of a Gardening Intervention.

First author(s): Sarah Nieß

Other author(s): Flurina Schneider, Steffen Pauls, Sebastian Schuch, Marion Mehring

Affiliation: ISOE – Institute for Social–Ecological Research, Frankfurt, Germany

Contact: sarah.niess@isoe.de

The alarming decline in insect populations is still greatly underestimated by the public and their vital ecosystem services are largely taken for granted. Declining nature experiences have been associated with negative attitudes towards nature, potentially resulting in ‘biophobia,’ with this antipathy particularly pronounced towards invertebrates and insects. Consequently, negative attitudes and relations with insects have been associated with a reduced willingness to engage in conservation. Gardens, beyond their ecological benefits, can serve as spaces for direct interaction with nature, fostering people’s connection with and valuation of nature, and a sense of stewardship and responsibility towards nature.

Addressing the persistent challenge of unfavorable attitudes towards insects and consequent low conservation efforts, in this contribution, we explore the potential and effectiveness of a large–scale gardening intervention as a leverage point for transformative change in the relationship between humans and insects. In an interdisciplinary social–ecological collaboration involving entomologists and social scientists, and together with a renowned weekly newspaper, we conducted a Germany–wide intervention. The multifaceted intervention combined education, citizen–science engagement, and practical conservation actions. Using a quasi–experimental design with 1124 participants, we employed a difference–in–differences analysis to assess the intervention’s impact on a holistic set of human–nature relations and behaviors.

Our findings demonstrate positive effects on insect–related attitudes, problem awareness, knowledge levels, and conservation behaviors, particularly among individuals with initially low engagement. We conclude that the topic of gardening can function as a lever to shape the relationship between people and nature and to change people’s behavior in relation to insect conservation. This approach aligns with a relational notion of people and nature that goes beyond focusing on the benefits nature provides to humans, fostering a holistic perspective on human–nature interactions.

Keywords: Human–nature relations, Behavioral interventions, Insect conservation, Nature Connectedness



4. Exploring plural values and ecosystem services perceptions to enable transformative change in the Venice lagoon, Italy.

First author(s): Silvia Rova


Other author(s): Maraja Riechers, Daniele Brombal, Lorenza Maistrello, Fabio Pranovi

Affiliation: Environmental Sciences, Informatics and Statistics Dept., Ca' Foscari University of Venice, Italy

Contact: silvia.rova@unive.it

Climate change and biodiversity crises are rooted in the narrow set of utilitarian values that are prioritized in current policymaking processes. Therefore, recognizing the plurality of nature's values is a key step to enable a transformative change towards sustainability. In this work, we aim to explore the diversity of nature's values and ecosystem services (ES) perceptions expressed by the citizens of the Venice lagoon, Italy. The 965 complete responses obtained from our survey revealed a diversity of values, with almost half of the respondents mentioning a combination of two or more values of nature, including intrinsic, relational and instrumental ones. The perceptions expressed on ES allowed to divide the sample into four clusters, which recognize the importance of the lagoon's ES to different extents. Interestingly, these distinct ES perceptions are associated with different priorities in terms of nature's values. By considering ES perceptions and nature's values together, these clusters can be positioned along a gradient ranging from high to low alignment with sustainability principles. These results convey two key messages. First, part of the local community already recognizes the high importance of the lagoon's ecological structures, processes and ES, and holds values aligned with sustainability principles. These perspectives and values should thus be recognized and embedded in the local decision making processes. Second, the citizens that currently fail to recognize the importance of ES are those to which the greatest efforts should be directed, to promote a shift towards sustainability-aligned values and behaviours. From a leverage points perspective, working in these directions means to act upon crucial value-centred leverage points that can enable a transformative change towards a sustainable use of natural resources.

Keywords: Human-nature relationships, ecosystem services, plural values, transformative change, sustainability



5. About fish, farms, and fragility – a case study to enlighten human–nature relationships through a plural values assessment

First author(s): Jana Schluens

Other author(s): Jérôme Dupras

Affiliation: Université du Québec en Outaouais

Contact: schj06@uqo.ca

Freshwater ecosystems are under increasing pressure. From a value perspective, this pressure is closely related to a too narrow definition of nature's values in decision-making. Assessing plural values that encompass not only economic factors, but a variety of different value dimensions, such as socio-cultural and intrinsic values, is imperative to achieve transformative change. Nevertheless, assessment and consideration of multiple values is still scarce.

To promote a perspective of plural values in environmental decision-making, we assessed multiple values that people attribute to ecosystem services (ES), and how these values are affected by ES loss. We conducted semi-structured interviews with local stakeholders in a case study in the St.-Lawrence River in Southern Quebec, Canada.

We orient our analysis along the conceptual framework of multiple value dimensions of the IPBES (Intergovernmental Panel on Biodiversity and Ecosystem Services), which differentiates between intrinsic, instrumental, and relational values. Based on the value assessment, we identified narratives about human–nature relationships, and implications for decision-making that come along with these prevailing worldviews.

Our results show a strong discourse of human–nature dichotomy, accentuating the perceived opposition of instrumental and intrinsic values. This opposition comes along with narratives of fragility and wilderness that has to be protected from human influence. Relational values were strong in participants discourses, but not represented in actual decision-making processes. Our findings suggest that the identified relational values and related concepts, such as environmental justice and equity concerns, need to be emphasized in policy-making to ensure an inclusive and sustainable management of aquatic ecosystems.

Keywords: plural values, human–nature relationships, ecosystem services, decision-making, freshwater ecosystems



6. Human–nature relations in the nitrogen cycle: insights from an overview of scientific literature

First author(s): Bede West

Presenting author: Carla Washbourne

Other author(s): Maximilian Bauer, Charis Chalkiadakis, Nicolas Dendoncker, Tanya M. González–Martínez, André Mascarenhas, Francesca Leucci, Benjamin B. Phillips, Konstantina Tania Ploumi

Affiliation: UK Centre for Ecology and Hydrology (UK CEH); British Antarctic Survey

Contact: c.washbourne@ucl.ac.uk

The nitrogen (N) cycle is a familiar concept. As is the much simplified, often diagrammatic, representation commonly used to illustrate the scale, importance and interconnectedness of this global cycle that links air, water, rocks and living beings. However, in this representation, humans are often presented as a seemingly minor entity or not explicitly shown at all. This can obscure the idea that humanity is both a direct beneficiary of the nitrogen cycle (through food and resources) and an increasingly significant influence on its function. In this presentation, we highlight how diverse Human–Nature relationships (HNR) are expressed in recent academic literature on the nitrogen cycle. A sample of peer reviewed literature, containing explicit and inferred examples of HNR and the nitrogen cycle, was analysed using two approaches: 1) network analysis, to identify and illustrate quantified links made between components of the nitrogen cycle and 2) content analysis to understand how different kinds of terminology were being used to describe relationships between components in the cycle. The network analysis revealed diverse links between ‘human’ and ‘non–human nature’. The content analysis found some explicit use of relational terms, most commonly ‘depend*’. Both approaches highlighted strongly reciprocal links within the ‘human’ realm and the explicit centrality in which this is held across the corpus. We demonstrate the utility of combining quantitative and qualitative analysis to understand nuanced relationships in the nitrogen cycle and explore the utility this has to increase the acknowledgement of HNR in science communication and science–policy interface work. In this sense, we address several of the session’s topics, such as new ways of conceptualising and analyzing HNR, considering its multiple dimensions.

Keywords: Nitrogen Cycle, Human–Nature Relationships, Dependence, Network



7. Just Green Urban Transitions: Analysing Multispecies Justice in Mexico City in Urban Greening and Urban Nature Governance

First author(s): Anastasia Van Der Meer

Affiliation: Lund University and IUCN Commission on Ecosystem Management

Contact: anastasia.vandermeer@mespom.eu

This paper investigates the intersection of urban greening and multispecies justice from a more-than-human (MTH) perspective in Mexico City (CDMX). The study addresses a critical gap in existing research, which predominantly focuses on the human-centric implications of urban greening, such as gentrification and human well-being, while neglecting the needs and well-being of non-human life forms. By exploring notions of multispecies justice (MSJ), this research highlights the interconnectedness of human and non-human life within urban environments and advocates for a more inclusive approach to urban greening initiatives.

The research employs an exploratory qualitative case-study methodology, incorporating 4 site visits, 2 events, and 15 interviews with urban planners, landscape architects, nature conservationists, local communities, traditional agriculturalists, lawyers, policy makers, activists, and NGOs in CDMX. Data collection also includes a systematic review of literature of 140 articles, historical accounts, and urban ecosystem mapping. The findings reveal that although initiatives like the Plan Verde (Green Plan) show promise in promoting ecological justice, their implementation is often inconsistent and fragmented. Moreover, there is a disparity in recognizing various forms of nature, emphasizing the need for a more coordinated and decolonial governance approach.

Key findings suggest that effective urban greening initiatives should integrate traditional knowledge with scientific understanding to promote a holistic and inclusive approach to ecological justice. This study underscores the importance of community involvement and interdisciplinary collaboration in advancing MSJ. Local communities are identified as crucial stakeholders in environmental governance, ensuring continuity and fostering a sense of identity and belonging.

The research also highlights the potential of the Rights of Nature legislation as a framework for promoting MSJ in urban environments, though its success depends on coordinated societal efforts. A hybrid governance approach, emphasizing community participation and interdisciplinary collaboration, emerges as a viable solution for bridging policy intent and practical realities.



Ultimately, the research calls for a paradigm shift in urban governance towards a more holistic and inclusive approach that acknowledges the interconnectedness of human and more-than-human worlds. By prioritizing the voices and needs of both human and non-human inhabitants, urban greening initiatives can foster a more equitable and sustainable coexistence in urban environments. The findings advocate for tangible actions and collaborative efforts across diverse sectors to address socio-ecological injustices and promote a pluriversal approach to MSJ in urban settings.

Keywords: Multispecies Justice, Urban Greening, Urban Nature Governance, Environmental Justice