

BOOK OF ABSTRACTS

This Book of Abstracts provides a comprehensive overview of the session content and is structured into three main sections:

- I. **Session Description** – an introduction to each session, including its objectives and expected outputs
- II. **Session Program** – a detailed schedule for each session, including speakers and timing
- III. **List of Abstracts** – a complete compilation of all accepted abstracts

I. SESSION DESCRIPTION

ID: T8d

Linking ecosystem services and nature conservation narratives

Hosts:

	Name	Organisation	E-mail
Host (s):	Jakub Kronenberg	Social-Ecological Systems Analysis Lab, University of Lodz, Poland	jakub.kronenberg@uni.lodz.pl
Co-host(s):	Erik Andersson	University of Helsinki, Helsinki, Finland / Stockholm Resilience Centre, Stockholm University, Stockholm, Sweden	erik.andersson@helsinki.fi
	María Viota	University of the Basque Country (UPV/EHU), Spain	viota.maria@gmail.com

Abstract:

The concept of ecosystem services emerged out of the necessity to expand, enhance and broaden nature conservation narratives. How has it evolved since then, and how has it changed the way conservation is framed? Has it proven effective in the context of nature conservation, or is it diluting the original focus on non-human needs?

Ecosystem services may be seen as a reincarnation of the distinction between beneficial and harmful parts of nature that characterised the earliest attempts at selecting what deserved protection. Over time, it evolved into an analytical and complex system focusing on the biophysical processes linking nature to human well-being. While the ambition is to broaden the appreciation of value, the early emphasis on putting monetary values on the human reliance on nature and functioning ecosystems is still visible in the narratives used by many conservation organisations.

How have ecosystem services and arguments changed nature conservation narratives? Has the concept of ecosystem services, or its siblings, helped open up for diverse and pluralistic valuation methods for ecosystem services? And has this worked as a lever for extended conservation efforts?

This session links to the broad theme of the economics of ecosystem services. One of the examples of the work to be presented is a study based on the different narratives and value-based arguments used to promote bird conservation by conservation organisations from around the world. In this context, the session will link to the findings of the BirdEcon project ("A bird's-eye view of how the natural environment fits into economics: Searching for alternative paradigms by analysing bird conservation narratives"). However, the session is not limited to the BirdEcon project research and is open to submissions from others.

Goals and objectives of the session:

- To discuss the uptake of ecosystem services in conservation narratives.
- To present and discuss ongoing research on which arguments and narratives are used for nature conservation and their effectiveness in achieving different conservation outcomes.
- To discuss the pros and cons of the use of ecosystem services and different value frames in nature conservation.

Planned output / Deliverables:

Hopefully, the discussions during this session and drawing on the presented papers will lead to a new joint discussion paper linking ecosystem services and nature conservation narratives and future collaborations around new narratives for conservation.

Session format:

This session is planned as a standard conference session with a line of presentations of ongoing and completed research.

Related to ESP Working Group:

TWG 8 – Cultural services & Values

II. SESSION PROGRAM

Room: B1

Date of session: Wednesday 20, May 2026

Time of session: 16:45 – 18:15

Timetable speakers:

Time	First name	Surname	Organization	Title of presentation
16:45-16:52	Erik	Andersson	University of Helsinki and Stockholm University	Resilient Biodiversity Conservation: Working with Social–Ecological Connections to Navigate Crises
16:53-17:00	Jakub	Kronenberg	Social-Ecological Systems Analysis Lab, University of Lodz, Poland	Beyond ecosystem services – bird conservation narratives used around the world
17:01-17:08	Dagmar	Haase	Humboldt University Berlin and Helmholtz Centre for Environmental Research UFZ	Emotions versus arguments: Evidence on how the integration of ecosystem services into environmental planning has influenced biodiversity trends
17:09-17:16	Lisa	Lejemtel	CIREC, AgroParisTech, Cirad, CNRS, EHESS, Ecole des Ponts ParisTech, Nogent-sur-Marne, France	Visions of Nature in Paris’s policies
17:17-17:24	Sakineh	Ghorbanzadeh	Regional Science Group, Social Policy Institution, Åbo Akademi University, Finland	Reframing “Active Forest Owners” Through Relational Values: A Comparative Study of Private Forest Owners and Forestry Administration Staff in Ostrobothnia, Finland
17:25-17:32	Manisha	Ashraf	Wildlife Institute of India, Dehradun	Ecosystem services and the persistence of cultural traditions in

Kaziranga Tiger Reserve, an UNESCO
Natural World Heritage Site of India

17:33-17:40 Dominique Ghijssels KU Leuven

Why nature cannot be replaced: on the
limits of substitutive conservation

17:41-18:15 Panel
discussion
with all
session
presenters

III. LIST OF ABSTRACTS

The first author is the presenting author unless indicated otherwise

1. Resilient Biodiversity Conservation: Working with Social–Ecological Connections to Navigate Crises

First author: Erik Andersson

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Biodiversity conservation needs to adjust and keep adjusting to changing conditions. This is largely a matter of connections—across land uses, between people and the landscapes they inhabit, and between sectors and governance levels. Connections play an important role in shaping landscape dynamics and in the ability of conservation practitioners to be able to draw on resources outside their often limited mandates or authority. Focusing on disruptions, in this study, we discuss the current understanding of three interlinked aspects of conservation where active work with building and strengthening connections can help make recovery easier: landscape cohesion, societal appreciation and support for conservation, and the ability to rewire collaborations and bridge organisational and administrative boundaries. Specifically, we highlight how emerging insights on temporal shifts in connections, from spatial ecology to environmental psychology and crisis preparedness, inform and outline a research agenda for better situating conservation in complex landscapes undergoing frequent changes and disruptions.

Keywords: biodiversity conservation, crisis management, cross-scale dynamics, disruptions, social–ecological systems

2. Beyond ecosystem services – bird conservation narratives used around the world

First author: Jakub Kronenberg


Other author(s): Erik Andersson, Chris Sandbrook

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In this paper, we analyse the responses obtained from 75 semi-structured interviews with individuals working in bird conservation worldwide. The interviews were carried out between November 2023 and December 2025, reflecting a diversity of bird conservation organisations in terms of size and location (more than half from the Global South).

Both in our research and in formal bird conservation, birds represent a relatively easy entry point for discussing broader nature conservation. They are everywhere and are relatively easy to connect to, both at the societal and individual levels, offering high leverage compared to many other parts of nature. While anthropocentric and instrumental arguments seem to prevail, and ecosystem services are an important topic featured in bird conservation narratives, some organisations still refer to non-anthropocentric and intrinsic arguments. One particularly important emerging theme is connectedness to nature, reflecting relational arguments.



In this paper, we structure the arguments presented in the interviews along different gradients, such as anthropocentric–non-anthropocentric and cold-scientific–passionate. We suggest that the different bird conservation narratives reflect the persistence of the classic divide into pragmatic or practical and sentimental groups. The boundaries between these groups may be more blurry now than in the past, though, given how many organisations pragmatically use different arguments to talk to different audiences.

This research is part of the broader project entitled “A bird’s-eye view of how the natural environment fits into economics: Searching for alternative paradigms by analysing bird conservation narratives” (BirdEcon) and funded by the National Science Centre in Poland. The project aims to develop new approaches to capturing the value of nature in the part of the sustainability discourse that has become dominated by economic considerations.

Keywords: bird conservation narratives, ecosystem services, instrumental values, intrinsic values, relational values, anthropocentric vs. non-anthropocentric arguments, utilitarian vs. non-utilitarian arguments, discourse analysis

3. Emotions versus arguments: Evidence on how the integration of ecosystem services into environmental planning has influenced biodiversity trends

First author: Dagmar Haase

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In accordance with the objectives of the session, this paper discusses the question of whether and how the integration of ecosystem services into environmental planning has influenced biodiversity, its trends, and conservation narratives in recent decades since the emergence of the ecosystem services approach in the 1990s. A comprehensive evaluation of over 15,000 references and datasets was conducted across the entire territory of Germany as part of a systematic review. These references and datasets were analysed using weighted vote counts, Red List classifications, and other trend measures. The emphasis of the study was on the examination of status and trends, direct and indirect drivers, ecosystem services, and measures and instruments. The results, in relation to the session's central question—Have ecosystem services, as arguments, changed conservation narratives, and if so, how?

The following conclusions may be deduced from the evidence presented:

1. The discourse surrounding the efficacy and significance of ecosystem services in enhancing urban quality of life has undoubtedly garnered considerable attention. The utilisation of ecosystem services as a rationale for the implementation of green infrastructure and nature-based solutions is a growing trend.
2. With regard to the trends observed in various taxa in urban areas since 1990, and in some cases even earlier, it is necessary to exercise scepticism regarding the influence of the narrative introduced by the concept of ecosystem services. In this instance, the implementation of purely nature conservation measures played a significant role, largely without regard for the people who would benefit from ecosystem services.
3. It is evident that nature conservation, and thus also biodiversity conservation, is more likely to be supported by positive, direct experiences of nature, contact with nature, and emotions. This process has been shown to “positively charge” its narratives. It appears that the elements of perception and emotion have a greater impact on the efficacy of nature conservation measures than rational quantitative arguments.

The substantiation of these statements will be provided in detail in the presentation.

Keywords: Emotions, arguments, integration of ecosystem services into environmental planning, biodiversity state and trends, direct and indirect drivers


4. Visions of Nature in Paris’s policies

First author: Lisa Lejemtel

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Urban policies, such as climate change adaptation strategies or green space plans, are essential for preserving and enhancing nature in cities. However, how nature is considered in these policies varies widely, reflecting differing underlying visions and values. This study investigates how nature is framed in the urban policies of Paris, France. We analyzed 47 policy documents (2006–2025) that address urban nature either as a primary or secondary focus. We extracted semantic references to nature, nature's contributions to people and ecosystem disservices. Using a bottom-up approach combining multiple correspondence analysis and hierarchical clustering, we identified four distinct visions of nature in policies: "Weak vision", "Social emphasis", "Ecological emphasis", and "Integrated vision". There were significant associations between visions and the administration teams responsible for drafting the documents, as well as differences in proposed actions. There were no significant changes in visions over time, however some specific policies (such as the climate plan) showed a clear trajectory, with a more integrated consideration of nature in their latest versions. This study adds to the expanding literature on urban nature visions, with a focus on one of the larger European cities, known for its ambitious environmental commitments. It sheds light on the plurality of nature-related perspectives in urban planning and highlights how institutional structures influence the framing of urban nature in policy documents.

Keywords: Nature's values, Urban plan, Content analysis, Nature futures framework

5. Reframing "Active Forest Owners" Through Relational Values: A Comparative Study of Private Forest Owners and Forestry Administration Staff in Ostrobothnia, Finland

First author: Sakineh Ghorbanzadeh

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In traditional forestry, the "active forest owner" principle is often defined by visible management interventions aimed at maximizing economic benefits from forests. This focus prioritizes certain marketable Ecosystem Services (ES) while marginalizing non-economic benefits, such as cultural services, often leading to biodiversity decline. This paper adopts a Relational Values (RV) framework—defined as preferences, principles, and responsibilities—to focus on the meaningful relationships between forest owners and their forests. The goal is to unpack how "being active" is expressed through diverse ways owners care for, use, and take responsibility for their forests. This relational framing reveals a wider diversity of forest ES, including benefits that are difficult to quantify economically but are central to sustaining the relationship between the forest and its owner. The study used in-depth interviews with 23 private forest owners and 10 forestry administration staff in Ostrobothnia, Finland. The results found that owner "activeness" is deeply rooted in place-based attachment, family continuity, identity, and moral responsibility. Owners described multiple relational modes of activeness—such as partnership, managing, and stewardship—through which they balance various tangible and intangible ES. By contrast, forestry administration staffs frame activeness as a restorative relationship, emphasizing ecological integrity, recovery from degraded conditions, and active measures to support more "pristine" nature. Such emphasis prioritizes regulating and supporting services, and also highlights cultural services linked to preserving forests ecological conditions. Overall, the comparison shows that "active ownership" is rooted in place-based stewardship among private owners, whereas administrative framings lean toward restorative ecological integrity. These findings underline the need for forest policies and advisory practices to recognize the diverse relational meanings of "active owner," rather than relying on a single managerial standard.

Keywords: active forest owners, Relational Values, Ecosystem Services

6. Ecosystem services and the persistence of cultural traditions in Kaziranga Tiger Reserve, an UNESCO Natural World Heritage Site of India

First author: Manisha Ashraf

Other author(s): Srishti Badola, Syed Ainul Hussain, Ruchi Badola

Presenting author: Ruchi Badola

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Kaziranga Tiger Reserve, covering 1307.49 km² area in Brahmaputra floodplain of Assam, signifies a century old socio-ecological landscape. Inscribed as an UNESCO natural world heritage site in 1985, Kaziranga is home to approximately 70% of the world's greater one-horned Rhinoceros and exhibit the third-highest density of Tiger. Kaziranga is equally a lived landscape for Karbi and Mising tribes and along with the local inhabitants, they maintain nature-oriented cultural values that echo reciprocal relationships with the nature. Using a triangulated approach and secondary information, 71 fringe villages were identified as hotspots of human-wildlife interaction. Based on 1,425 respondents, the perception of local communities towards various ecosystem services provided by this landscape for sustaining livelihoods, cultural continuity and human well-being were examined. The findings of the study reveal that around 28 plant species contributed to the food security, folk medicine, ritual practices, construction, and supplementary income, while 18 fish species serve as key subsistence and commercial resources. Approximately 47% of households reported livestock grazing within the forest areas, and over 79% recognized regulating services such as flood mitigation, air purification and soil conservation as important services provided by this landscape. Cultural ecosystem services were mostly evident among the Mising tribe, where natural resources support rituals, food systems and associated processing practices. These traditional processes are increasingly eroding due to the change in land use and access constraints which needs to be preserved. Local knowledge systems are predominantly experiential, wherein certain wildlife species are revered and are symbol of pride, coexisting with prominent degree of tolerance amidst conflict. Restricting access to these resources therefore not only destabilizes economic security but also diminish social cohesion. Recognizing such traditional knowledge into conservation planning is vital for strengthening community resilience and adaptive natural resource governance in the Kaziranga landscape.

Keywords: Ecosystem Services, Culture, Traditional Knowledge, Natural Resources, Local communities

7. Why nature cannot be replaced: on the limits of substitutive conservation

First author: Dominique Ghijssels

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Contemporary conservation increasingly embraces substitution-oriented instruments - ecological compensation, biodiversity offsetting, habitat banking, and equivalence metrics - that treat ecological loss as a substitutable, compensable, and optimisable variable. These practices rest on a deeper normative assumption: that natural entities can be rendered commensurable through standardised units capable of guiding exchange. This paper develops a critique of substitutive conservation by integrating plural axiology, ontological realism, deontological restraint, and the virtue of care. It argues that many natural entities - organisms, ecosystems, landscapes, and culturally significant places - possess intrinsic, systemic, historical, and relational forms of value that make them non-fungible. Substitution misconceives these goods and erases morally salient forms of loss. In response, the paper advances an ecocentric orientation grounded in restraint, humility, and care toward the more-than-human world. When harm nevertheless occurs, restoration should be understood not as a compensatory equivalent but as ethical repair: a forward-looking practice that enables renewed ecological self-organisation while acknowledging the irreversibility of loss. The argument is developed across value theory, moral psychology, and governance design, culminating in a framework for ethical conservation that treats nature not as a portfolio of tradable units but as a community of beings, histories, and relations that command respect in their own right. The analysis then outlines governance reforms capable of institutionalising non-fungibility, ethical impact assessment, and commitments to ecological space, while also addressing the ethical dilemmas that remain even within a non-substitutive conservation ethic. The paper ultimately calls for a shift in conservation from designing acceptable losses to safeguarding irreplaceable lives, ecological continuities, and relations. Only within such an ecocentric orientation can repair remain ethical, and loss remain morally visible.

Keywords: Nature substitution, biodiversity conservation ethics, plural valuation of nature, restraint, virtue of care

