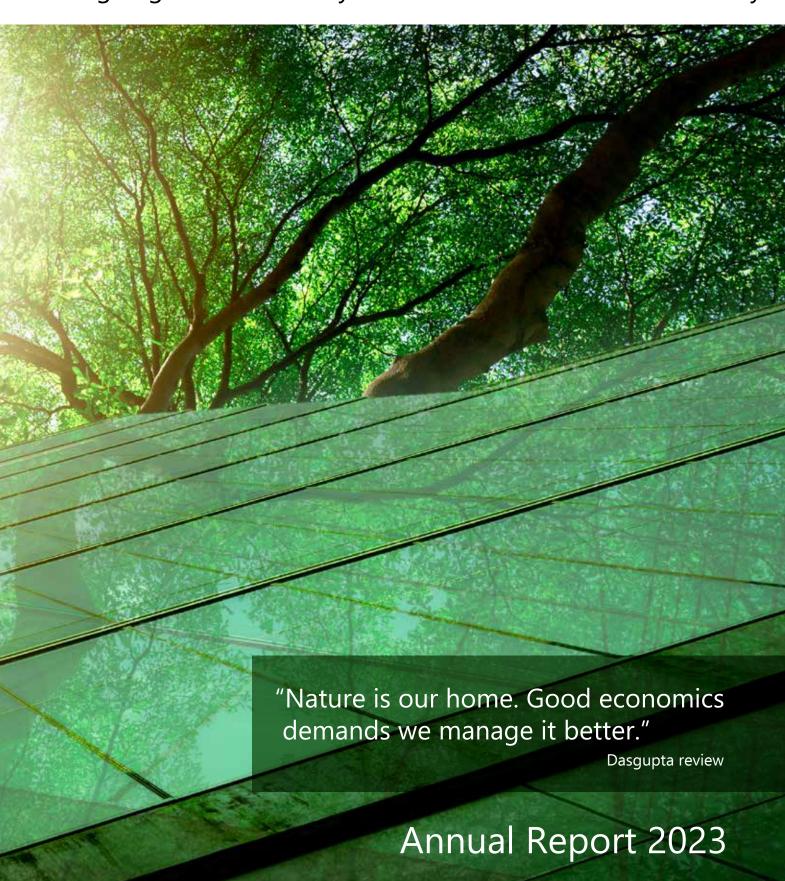
- Aligning the Financial System with the Needs of Biodiversity





"Nature underpins our collective survival and well-being. It provides human development and equality, economic value and security, and increases our resilience to climate change. Nature's critical role is being increasingly recognized within the business and finance community in decision-making, from operations to value chains and investments."

**Business for Nature** 



Contact: info@mistrabiopath.se Website: www.mistrabiopath.se

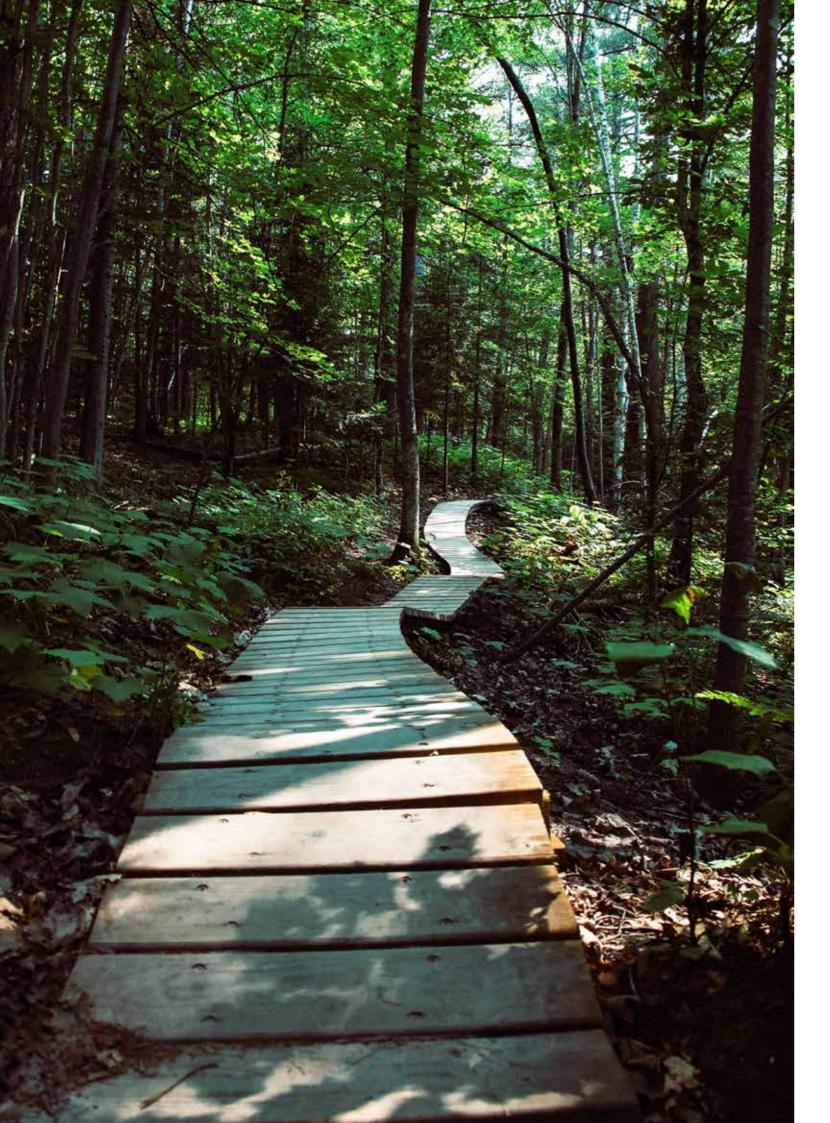
LinkedIn: https://www.linkedin.com/company/mistra-biopath Youtube; https://www.youtube.com/@mistrabiopath





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### **BIOPATH** in brief

BIOPATH is a research programme, funded by Mistra, with a vision to integrate the needs of biodiversity into decision-making in industry and the financial system. The transformation of the financial system makes it an important driver for halting and reversing the loss of biodiversity.

BIOPATH focusses on direct and indirect effects on land-use change and management, intensity related to agriculture, forestry, and energy, because land-use is the largest driver of terrestrial biodiversity loss. Over the programme period 2022–2026, we will consider additional drivers of biodiversity loss affected by industry, including a wider take on land-use as well as emerging drivers such as climate change.

The BIOPATH researchers are experts in biodiversity research, life-cycle assessment, sustainable finance, economics, political science, accounting, policy processes, law and governance, and digital innovation. Partners are global leaders in sustainability work, covering the entire land-use value-chain of the agriculture, forestry, and energy industry as well as the financial system, thereby having a real impact.

# Research is performed in three interlinked work packages

Our structure for reaching our vision and aims in the first four years of the BIOPATH programme is built around three interrelated work packages (WPs). The WPs have distinct characters, focussing on quantification of biodiversity impact (WP1), integration of biodiversity impact (WP1), integration of biodiversity into financial decision making (W2) and mainstreaming biodiversity through governance innovation (WP3), yet closely integrated through the set-up of the organisational structure, research tasks, and sub-tasks.

IMPACT

**WP1** is focussing on quantification of biodiversity impact.

**WP2** is focussing on integrating biodiversity considerations into financial decision-making.

**WP3** is focussing on mainstreaming biodiversity through governance innovation.

#### Benefits to society

BIOPATH will contribute to the preservation of biodiversity globally, regionally and locally, and thereby to the moral imperative of preserving biodiversity for its own sake (Convention Biological Diversity) as well as an enabler of ecological functions crucial for human wellbeing.

Ongoing declines of biodiversity (IPBES 2019) and biodiversity's interaction with climate change makes this challenge more important than ever. BIOPATH's major contribution will be to provide useful, attractive, and science-based approaches for an efficient integration of biodiversity considerations into the decision-making of industry, the financial system and public authorities, which in turn will lead to the transformative behavioural change essential to halt and restore biodiversity loss.

This may give biodiversity-conscious finance and business a competitive edge, because of a higher attractiveness of sustainable investments or price premiums on sustainable products. Ultimately, it will by significantly reducing threats to biodiversity, also contribute to reducing financial risks. BIOPATH responds to several of the Sustainable Development Goals.

#### CAUSES OF ACTION

MAP & ASSESS

INNOVATE & DEVELOP

TEST &

TRANSFORM

the Financial system

Critically assess and improve the landscape of biodiversity impact assessment approaches to support financial decision-makers with guidance on their use

WP1 Quantifying biodiver-

sity Impact for Industry and

WP2 Integrating biodiversity considerations into Financial decision-making

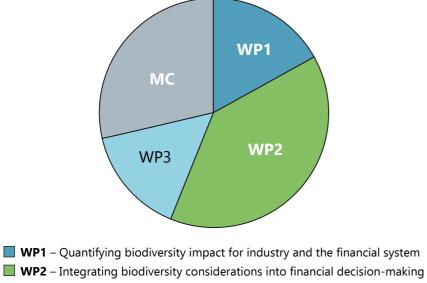
Improve existing financial decision-making processes in industry and the financial system & develop innovative approaches to leverage the transformative power of the financial system

WP3 Mainstreaming biodiversity through governance innovations

Critically assess
existing
governance
solutions and
analyze the
institutional and
policy implications
of potential
transition
pathways.

## **BIOPATH** in numbers

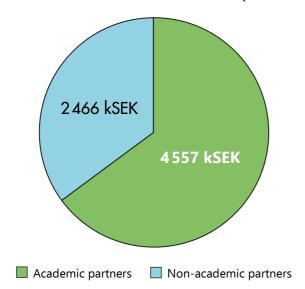
#### Distribution of funds from Mistra\* 2022–2023 (15 months)



**WP3** – Mainstreaming biodiversity through governance innovations

■ MC – Board, Management and Communication

#### In kind contribution 2022–2023 (15 months)



## **Words from the Programme Director**

Mistra BIOPATH has got off to a strong start! In the past fifteen months, we've solidified our position as a key hub for applicable research on biodiversity and the integration of biodiversity considerations into financial decision-making processes. The significance of our programme is underscored by the increasing attention that we are receiving, not least in forms of invitations to join new collaborations and requests to share our findings. There is clearly a need among financial institutions, firms, and policymakers for research and assistance to help them to address biodiversity concerns. Through our constructive collaborations between academia and high-profile partners we have a unique opportunity to co-create new knowledge and contribute to capacity building among key stakeholders.

To date, our efforts have primarily focused on the "MAP & ASSESS" tasks. We have dedicated ourselves to identifying and analysing leading research, key players, and significant policy frameworks and initiatives at the crossroads of biodiversity and financial decisions. As this phase nears completion, we are gearing up to tackle next tasks where innovative tools and approaches will be developed and tested with the vision to promote transformative change.

During the first phase of our programme, we have also invested in developing a dynamic communication platform. This initiative fosters a vibrant exchange of ideas and proposals within our programme community, laying a robust foundation for our collective work.

In this journey, we remain inspired and motivated by the potential to make a meaningful difference in integrating biodiversity considerations into the realm of financial decision-making, setting a new standard for sustainability in the economic landscape. This journey has only just begun, and we look forward to contributing to reaching its end goal of halting and reversing biodiversity loss. Finally, I want to express my gratitude to the BIOPATH team - experienced researchers, young scholars with new mindsets and engaged partners - all dedicated to take on this grand challenge. Our will to make a different is what unites us!



Susanne Arvidsson Programme Director

### **Board**



Susanne Bolin Gärtner Former Head of Fund and Management Selection, Danske Bank



Matt Jones Chief Impact Officer, United Nations Environmental Programme – World Conservation Monitoring Centre (UNEP-WCMC)

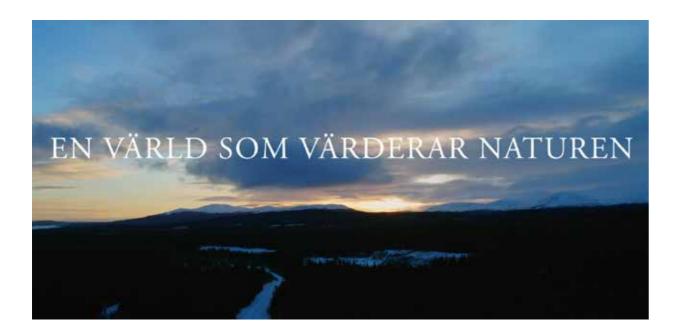


Jan Bebbington Professor of Accounting and Sustainable Development, Director of the Pentland Centre, Lancaster University



Bill Sutherland Director of Research at the University of Cambridge, Department of Zoology

<sup>\*</sup> The funding from Mistra for 2022-2023 is approximately 11,1 MSEK. The total funding from Mistra for the whole programme period is 50 MSEK.



# Educating organisations on why and how to care about biodiversity

As part of their in-kind contribution to the Mistra BIOPATH programme, Västra Götalandregion enabled the production of an educational film with BIOPATH researchers and partners targeting small and medium-sized enterprises primarily but of relevance to any organisation in the process of learning about their impact on nature and the risks that failing ecosystems and loss of biodiversity may have for their operations and society.

The need to build capacity in all organisations on these matters are pushed by many new directives and requirements for reporting that affect all parts of commercial value chains. Titles A world that values nature, the film mixes interviews with BIOPATH researchers with wild and cultivated landscapes, industrial resource use and affects on nature, providing a range of perspectives of the consequences of so-called double materiality – the dependence of nature's contributions to people and the risks related to the loss of them.

The film was mainly produced around Gothenburg and Lund and has been screened at events by BIOPATH partners and also by collaboration partners such as SamBio and WWF and to the network of communicators in BIOPATH partner organisations. The rich material of the interviews led to a choice to make two versions of the film, one condensed five-minute version, and a longer seventeen-minute version with more examples, including the business strategy relating to biodiversity by Nudie Jeans, a small/medium sized enterprise partner to BIOPATH.

Concepts explained in the film range from a definition of Biodiversity to Life cycle analysis (LCA), Double materiality, Corporate Sustainability Reporting Directive (CSRD), Ecosystem services, Mitigation strategies, and examples from Living Planet Index report and WEF risk assessments.

The film is available at Mistra BIOPATH Youtube channel (Mistra BIOPATH – YouTube) with subtitles in both Swedish and English.



"Around 40% of all 350 000 different plant species are threatened and could disappear in the next decades. And 69% of all animal populations have declined since the 1970's." Alexandre Antonelli, Professor in Biodiversity and Sytematics at the University of Gothenburg, Director of Science at Royal Botanic gardens, Kew.

# **Quantifying Biodiversity Impact for Industry** and the Financial system

**WP1** maps and evaluates available approaches (methods, metrics, and tools) that link decisions in industry and the financial system with impacts on biodiversity and ecosystem services/nature's contribution to people, as well as evaluates how useful, transparent, relevant, and credible they are.

The mapping serves as a baseline for guidance on using existing or new approaches tailored to inform decision-making that affects land-use change and management with consequences for biodiversity and ecosystem services.

The methodology includes rapid self-assessments, adapted Life Cycle Assessments (LCA) suitable for financial and industrial decision-making, and novel advanced tools that exploit big data using artificial intelligence and big data capturing spatially explicit biodiversity impacts and risks.

These approaches are tested in joint case studies with our partners, in order to identify gaps in information and metrics used, determine their usability and gain advise on further developments leading to user-friendly tools in financial decision-making.

Measuring biodiversity on various scales from landscape to ecosystem, to species and genetics can also be conducted from the view of composition, structure and function – there is no single indicator such as CO2.

Mapping the current metrics, methods and tools used to account for biodiversity impacts is a key task and provides guidance to usability.

Developing data-driven approaches to integrate biodiversity into financial decisions is a key task, using machine learning on various data sets linking impact, land-use and biodiversity.

#### **Highlights 2023**

TNFD workshops provided increased understanding of the perspectives on biodiversity in financial accounting from other actors, providing joint learning and knowledge sharing.

Sector specific workshops with partners such as Orkla and FSC, provided in-depth knowledge on how to bridge gaps in processes related to risk assessment, using data in new ways, linking certifications to supply chain accounting etc.

Understanding the challenges in gathering relevant and high-quality data ensuring it is the right information from the location where the negative or positive impact takes place.

Understanding the challenges in educating professionals from other areas than natural sciences on the conservation and promotion of biodiversity and how

safeguarding ecosystems and safeguarding biodiversity differ or can be similar.

Identifying several new research topics for example on how certification can contribute to learning processes that in turn affect the conservation of biodiversity in a positive direction. Another topic relates to the research on managing ownership of joint information on the status of global biodiversity to gain true and legitimate accountability for those harming nature, in line with the Convention of Biodiversity, CBD.



Henrik Smith Professor Animal Ecology, Lund University



Johanna Alkan Olsson Senior lecturer, Human Geography, Lund University

**Academic leaders:** Henrik G. Smith (LU), Johanna Alkan Olsson (LU)

**Partner leaders**: Thomas Kröber (Arla Foods), Olle Eliasson (Kraftringen), Jessica Nordin (Södra Skogsägarna)

Participating researchers: Ulrika Palme (Chalmers), Ullrika Sahlin (LU), William Sidemo Holm (LU), Thomas Sterner (GU), Ben Groom (University of Exeter), Daniele Silvestro (Fribourg/GU), Pål Börjesson (LU), Marie Stenseke (GU), Alexandre Antonelli (GU/Royal Botanical Gardens Kew), Carla Coelho, Postdoc (LU).

# Working together with TNFD throughout 2023

The Taskforce on Nature-related Financial Disclosures (TNFD) is a private initiative, established to encourage and facilitate a shift in the mindset and behaviour of companies and financial institutions through enterprise and portfolio risk management and mainstream corporate reporting.

Building on the market's experience with climate-related reporting over the past decade and the work of the Task Force on Climate-related Financial Disclosures (TCFD), the TNFD recommends 14 disclosures to promote the provision of clear, comparable, and consistent information by companies to investors and other providers of capital.

The Taskforce provides a set of metrics for measurement and a suite of guidance to help organisations get started on nature-related assessment and disclosure. It builds on existing frameworks and standards, including those of the ISSB and the GRI. In an open innovation approach, stakeholders have played a critical role in the development of the recommendations.

BIOPATH has been one of these stakeholders, engaging partners in four workshops throughout the first year of operations. Experiences from piloting the framework was shared and feedback has been provided to the further development of TNFD until their launch in late 2023. In early 2024 the TNFD announced its first early adopters at the World Economic Forum, among them BIOPATH partner organisations AP2 and OX2.

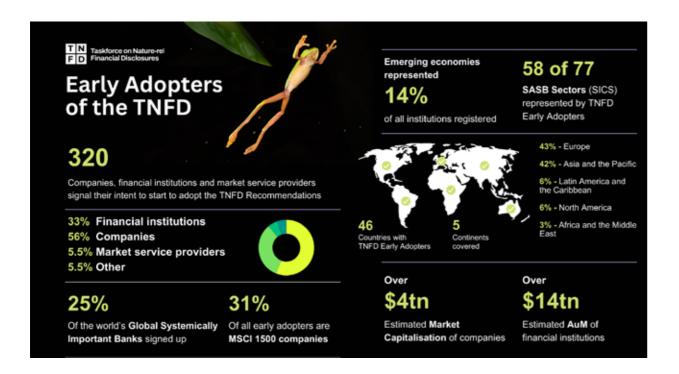


Lively discussions at the 3<sup>rd</sup> BIOPATH workhop on TNFD.

"After an extensive partner engagement throughout the first four workshops, we are now in the process of testing the TNFD framework together with a few selected partners", says Viktor Elliot, Senior lecturer, School of Business, Economics & Law, University of Gothenburg and WP2 leader, Mistra BIOPATH and continues:

"It is a learning process to understand how to best collaborate between research and practice when implementing a new framework. However, it is very rewarding and hopefully it will foster in-depth learning on both sides."

Of the organisations that are already starting to use these recommendations, many are seeing the advantages of taking an integrated approach to nature and climate assessment.



# Integration of biodiversity considerations into financial decision-making

**WP2** maps best practices for integrating biodiversity consideration among financial market actors as well as land-using industrial firms in their decision-making processes across the value chains of agriculture, forestry and energy, and evaluate them based on their usability for actionable decision-making.

The mapping is conducted in close collaboration with WP1 and WP3 and serves as a baseline for our development of an online-based configurator for efficient integration of biodiversity into financial decision-making and novel approaches (methods, metrics, tools) accounting for biodiversity impacts and restoration for example in investment decisions, portfolio analyses, capital acquisition, insurance, and lending.

The methods, metrics and tools are tested with selected partners to ensure usability including compliance with existing regulatory requirements, operational efficiency, and scalability. These approaches are also tailored to and tested in a wider context to analyse the financial performance of investments that promote biodiversity, whether portfolios can be altered to reduce nature-based risks/impact at low cost to return, and whether these investments have a de facto positive impact on biodiversity or only a reduced negative impact.

#### Highlights 2023

We have conducted a comprehensive literature review that provides a picture of the state of research in accounting and finance. The preliminary lessons learnt are that the research is still in its infancy and that significant work is needed to understand how companies and financial institutions can become more proactive on the issue of biodiversity, how biodiversity can be systematically integrated into various financial decision-making situations and what data is required to make informed decisions that take biodiversity into account.

We have conducted a series of workshops with high partner engagement on the TNFD framework, one of the leading initiatives designed to help companies report more systematically on biodiversity impacts, dependencies, risks and opportunities. The TNFD workshop series has led to a number of dedicated projects with our partners where we are jointly testing elements of the TNFD framework to understand how it can be applied in practice.

We have also initiated a major empirical effort consisting of mapping and acquiring various databases, interviews and surveys to more systematically map the importance of biodiversity in corporate decision-making, whether and how biodiversity plays a role in risk and return in financial markets, and how different industries



Susanne Arvidsson Associate professor, Business Administration, Lund University School of Economics and Management



Viktor Elliot Senior lecturer, Business Administration, School of Business, Economics, Law, University of Gothenburg

talk about biodiversity in their communication with financial market participants.

We have carried out extensive dissemination efforts, with targeted conferences, workshops, trainings, newsletters and individual business dialogues.



Viktor Elliot and Susanne Arvidsson with master students Ulrika Ohlsson and Markus Ögren at BIOPATH 2<sup>nd</sup> workshop on TNFD.

**Academic leaders**: Susanne Arvidsson (Lund University, LU), Viktor Elliot (University of Gothenburg, GU),

**Partner leaders**: Catharina Belfrage Sahlstrand (Svenska Handelsbanken), Toby Croucher (Stora Enso) John Kornerup Bang (Stora Enso)

Participating researchers: Hossein Asgarhian (LU), Fredrik NG Andersson (LU), Ylva Baeckström (FIN – Kings College, GU), Mari Paananen (GU), Krisitina Jonäll (GU), Michal Dzielinski (Stockholm University, SU), Lu Liu (SU), Sara Linnéa Jonsson (SU), Giovanna Michelon (Bristol University), Frederik Steen Lundtofte (Aalborg University), Johan Magnusson (GU), Madeleine Lindblad (PhD LU), Van Cao Thi Hong (PhD LU), Emma Tova Olofsson (PhD GU)

## A series of sector specific policy labs



The overall goal of the sector specific policy labs in Mistra BIOPATH is to map and improve understanding on the current state of the art in the areas of the three industry clusters – Swedish forestry, agricultural ecosystems, and energy market actors. Partner organisations and vital stakeholders are invited to explore what the difficulties and barriers for integrating biodiversity in decision-making in the area are and to understand what initiatives and ideas for innovation can be developed further.

In the first BIOPATH Policy Lab in April 2023, the issues were related to forest management and governance. Skogsstyrelsen, LRF and FSC presented their perspectives on challenges and opportunities and inputs were gathered from participating representatives from Södra, Handelsbanken, Kraftringen, WWF and researchers from all workpackages in Mistra BIOPATH. The information discussed is kept confidential according to the Chapham rules, stating that anyone can use the information received but not reveal either identity or affiliation of the speakers.

However, the outcome will be shared eventually. As a result from the policy lab on Forestry, the researchers in workpackage 3 who lead the policy labs, are currently designing a discrete choice experiment with Swedish forest owners. This will provide a better understanding of what policy features are acceptable and what the price of biodiversity actions would be. The survey on solutions for compensations is conducted in collaboration with Södra, Mellanskog, Norra and Skogsstyrelsen.

In the fall of 2023, a second policy lab was held, this time focusing on the Agricultural sector. A number of leverage points were mapped and explored, aiming to understand where in the value chain the highest impact can be achieved related to biodiversity and decision making.

Knowledge sharing on the current political landscape of issues related to agriculture, hot topics on the agenda within the sector and initiatives within the financial sector that relates to the conservation of biodiversity. The mapping of the value chain ranging from suppliers to primary and secondary producers, to retailers and consumers and

further to recycling and waste management, provided a lot of discussion points and joint learning. To conclude, the next steps for the most promising pathways study further within the transdisciplinary research of Mistra BIOPATH.

The survey covering two aspects – the willingness to pay (wtp) for increased conservation of biodiversity and willingness to accept (wta) increased costs to meet this goal, among actors in the value chain of agricultural products, is in progress and will be presented in 2024.



Markus Hoffman, LRF



Rolf Åttingsberg, Handelsbanken

# Mainstreaming biodiversity through governance innovations

**WP3** maps scientific knowledge about the current state of the regulatory system regarding the financial system and land-using industries in relation to how they consider the needs of biodiversity.

A key focus is improving the informational basis for public regulation and monitoring of market-based approaches for biodiversity, in particular through the development of national accounts for biodiversity and an assessment of the alignment of public finances with biodiversity.

The development of decision supporting approaches provides the basis for co-creative policy labs, through the establishment of a transdisciplinary research network with our partners.

Our policy labs are co-creative spaces in which experiences from the markets, the regulators, and science comes together and jointly identify gaps and innovate solutions to improve the overall system performance to protect biodiversity.

The most promising solutions are then pilot tested through either imaginative scenario planning or experimental applications that pave the ground for larger scale transformations.



Mapping the value chain at BIOPATH Policy Lab on Agriculture

#### **Highlights 2023**

The policy lab on Forestry was a first joint exercise in how to work together to develop new knowledge and solutions. As a result, a survey on compensatory solutions is finalised in 2024.

The policy lab on Agriculture was our second session of co-creating understanding of a specific sector and its regulations and market challenges. As a result, a deeper analysis will be conducted by a postdoctoral student joining Mistra BIOPATH in April 2024.

A special Issue in Current Opinion in Environmental Sustainability, with 28 planned contriburions from all over the world with thematic articles in finance, biology, political and ethical perspectives on the financial system and biodiversity to be published in 2024.



Lena Gipperth Professor Environmental Law, University of Gothenburg



Nils Droste Associate Senior lecturer, Political Science, Lund University

The core idea is to bring together a range of scholars from different disciplines and different regions who work on these topics under an overarching umbrella that showcases a selected portfolio of approaches in this quickly developing field. The aim is to provide a reference point and an overview of what is currently being developed.

The main guest editors are leaders of Mistra BIOPATH although the ambition is to ensure a diverse group of authors with different regional perspectives. An invitation to contribute was also extended to Mistra FinBio, the sister project funded by Mistra on Biodiversity and Finance, coordinated by the Stockholm Resilience Centre.

**Academic leaders:** Nils Droste (Lund University, LU), Lena Gipperth (University of Gothenburg, GU)

**Partner leaders**: Eva Mayerhofer (The European Investment Bank), Stefan Karlsson (The Swedish Forest Agency), Amanda Björsell (LRF)

**Participating researchers**: Mine Islar (LU), Jesper Svensson, Postdoc (LU), Johannes Somsen (LU), Lovisa Fransson, PhD, (GU), Julia Qian Mao, PhD (LU)



## **BIOPATH PHD students and Post Doc fellows**



**Van Cao Thi Hong** is a PhD student (WP2) at the Department of Business Administration, Lund University. She has previously worked with financial audits and due diligence as a financial consultant at PWC.

Her research concerns how businesses apply new processes and gathers knowledge on best practices. In a series of interviews with partner companies she follows their implementation of TNFD from the very start

"The benefits of working with the BIOPATH Programme is the interdisciplinary approach and holistic view because we cannot do this work separately. The connection with the other work packages is vital for the whole perspective and adds value."



**Julia Mao** is a PhD student (WP3) at the Department of Political Sciences, Lund University. She has recently worked as the Director of the International Cooperation and the International Institute of Green Finance Institute. Previously, Julia has worked as a Sustainability specialist for a company in Sweden.

Julia Mao investigates public expenditures and how they can be used more effectively and as leverage for change.

"The topics of BIOPATH need to be co-explored by many stakeholders, both national and international, in finding how new mechanisms can be designed for better policy making that integrates concern for biodiversity."



**Lovisa Fransson** is a PhD student (WP1) at the department of Law, University of Gothenburg. Previous work has been related to environmental law on seas and oceans, e.g. as an intern at the Swedish Ministry of Foreign affairs. As a trainee, she worked with EU:s climate related aid in Bolivia.

Lovisa Fransson studies how legal instruments can make financial actors integrate biodiversity. Her research gathers data on the processes in various companies, through interviews with board members and studies on the change of customer behaviours.

"Biodiversity is a new area for me, and it is exciting to learn more and analyse how various actors try to implement the new regulations and frameworks for disclosure. The international aspects of the Mistra BIOPATH scope and consortia are very interesting to me."



**Emma Olofsson** is a PhD student (WP2) at the department of Economics, University of Gothenburg. She has previously worked for the Swedish International Centre for Local Democracy.

Her research is focussed on the financial actors' impact on ecosystems and biodiversity. She studies the incentives for change and how institutional investors can influence companies in their portfolios, especially in forestry and agriculture.

"The vision and ambition of BIOPATH is very inspiring. Working so close with companies, banks and institutional investors can really bring substantial change which is important to me."

### **BIOPATH PHD students and Post Doc fellows**



**Madeleine Lindblad** is a PhD (WP2) student at the department of Economics, Lund University. She is also a keen composer of new classical music and had explored this career in previous studies.

Her research topics cover "peer pressure" and comparative advantages of how companies manage to integrate knowledge about biodiversity in decision-making. Several aspects are investigated such as the networking effects between companies and networking effects within boards.

"If we get the right data, we can follow the effects in the financial flows. As the EU Taxonomy and other requirements are implemented, all companies will have to understand their impacts and find their relevant data."

#### **POSTDOCS**



**Jesper Svensson** is a Postdoctoral fellow (WP3) at the Department of Political Science, Lund University

His research concerns the financial market as an external impact on biodiversity and cooperative institutions in Sweden. He will seek to shed light on the conditions under which market-based strategies promote or hinder biodiversity conservation.

"We hope to be able to identify leverage and decision points in the financial system that we in turn can bring up with relevant actors to steer the system in a different direction"



**William Sidemo Holm** is a Postdoctoral fellow (WP1) at the Centre for Climate and Environmental studies, Lund University. Before joining BIOPATH, William Sidemo Holm worked for the Agrifood Economic Center with socio-economic analyses and reports to different authorities.

He studies the various tools and methods used by companies to find out how they affect biodiversity, in their own production and in their supply chain with a main focus on agriculture.

"I have worked a lot with farmers and organisations within agriculture and know what needs to be done there to reduce the negative impact on biodiversity. I find it interesting to listen to what the companies need and to include these insights in our research."

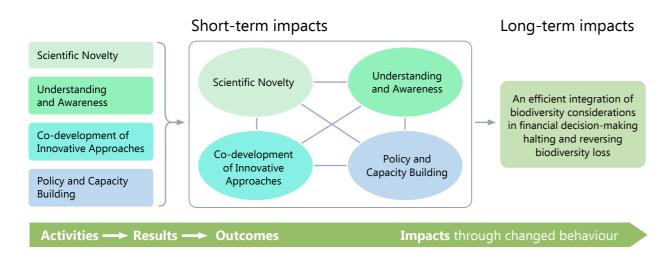


**Carla Coelho** a Postdoctoral fellow (WP1) at the Centre for Climate and Environmental studies, Lund University. She has previously worked and studied in Sweden and for a brief period, she worked in NZ with making maps for local and national governments. She has a broad experience of Life Cycle Assessments (LCA).

Her research explores how LCA can help companies to answer questions on impact and risk related to biodiversity. If companies have more knowledge, they are better equipped and can act more confidently or understand the need for further investigation.

"Via LCA you can show what really matters so you can focus on the right things. With LCA we can define where the problems are and what they are, which ones are the most important and what impact they may have."

## **Short and long-term impact**



Mistra BIOPATH long-term impact will be an efficient integration of biodiversity considerations in financial decision-making halting and restoring biodiversity loss. To work towards our long-term impact, we have identified short term impacts and categorised them under four pathways towards impact – Scientific Novelty, Understanding and Awareness, Co-development of Innovative Approaches and Policy & Capacity building.

As the inclusion of biodiversity's needs in financial and industrial decision-making is a relatively new and highly complex endeavour, BIOPATH seeks to adapt and develop approaches that efficiently and transparently capture impact along value chains on multiple dimensions of biodiversity.

However, capturing the impacts on biodiversity is not enough to reach our long-term goal, and we will therefore develop clear and usable strategies for how biodiversity considerations can enter into decision-making processes. This includes the development of new types of services and competences.

In the first 15 months of the programme, papers are being published and more are due to in the year ahead. Researchers in all work packages have been giving keynote and presentations at conferences and round tables and shared knowledge in networks and through scientific collaborations.

#### **Developing the BIOPATH framework**

BIOPATH has a task force with the role to support a well-integrated combination of disciplinary excellence and inter- and transdisciplinary scientific excellence. As the researchers involved in BIOPATH represent many different fields of expertise such as life-cycle assessment, biodiversity prioritisation approaches, sustainable finance, economics, political science, accounting, policy processes, law and governance, it has been important to understand the various perspectives and scope and to formulate a common framework and systems view. The work will be further refined in 2024 and will serve as a common platform for joint understanding and communication.



## **Understanding and Awareness**



#### Creating a knowledge hub

In order to support BIOPATH partners and other stake-holders in trying to understand the terminology, definitions, abbreviations, frameworks and regulations on biodiversity, a crash course was produced in early 2023 and shared in Swedish and English online on BIOPATH website. The four chapters are divided into the following categories:

- Convention on Biodiversity, Global Biodiversity framework and key international bodies
- 2. Drivers, EU Taxonomy and other EU regulations
- Various indices, risk analysis, evaluation of impacts on biodiversity
- 4. Reporting, standards, directives and regulation

<u>Crash course on Biodiversity, Business & Finance</u> – MISTRA BIOPATH

#### **Developing the BIOPATH Glossary**

In 2023, the work started on collecting words and acronyms from BIOPATH's partners and researchers for a more thorough BIOPATH Glossary, developed by the group of doctoral students, postdoctoral fellows and the task force. The purpose is to increase our knowledge of words we do not know (and they will be included in educational materials and also to showcase different interpretation of words to facilitate cross-disciplinary communication.

Some words have relatively simple meanings and are a matter of general knowledge while other words mean different things in different contexts or are interpreted differently depending on the disciplinary background. The words are sorted under the categories Biodiversity, Finance, Industry and General (or with multiple meanings). The Glossary is a dynamic work and will be further developed over the years and made available as a public resource on the BIOPATH website.

#### **Engaging with Biodiversity Collage**

Along with sharing knowledge resources online, Mistra BIOPATH, promoted the physical educational material called Biodiversity Collage, produced by the French organization, La Fresque de la Biodiversité, and organised workshops for partners, researchers, and doctoral students to learn how to use it for different target groups and occasions. In close collaboration with a French engineering student at Lund University, who is a trained facilitator of the concept, BIOPATH will develop a version of the kit, with examples from the Nordics and Northern Europe as well as in the Swedish language. This work will be carried out in 2024 and be part of an educational package for high schools, higher education and professional training.

Biodiversity Collage – Workshop to discover the systemic aspect of biodiversity (fresquedelabiodiversite.org)

## **Capacity building**

The Mistra BIOPATH policy labs are designed to map and improve understanding of the current state of the art in the areas of the three industry clusters in the programme – forestry, agricultural ecosystems, and energy market actors. Partner organisations and vital stakeholders are invited to explore what the difficulties and barriers for integrating biodiversity in decision-making in the area are and to understand what initiatives and ideas for innovation can be developed further. This is described in more detail in another section of the annual report.

# Motivation and support for Swedish and international actors

There are many arenas and forums where BIOPATH researchers provide knowledge, motivation, and support on how to integrate concerns on biodiversity into decision-making. Here are a few examples from the first year of operations.

In March 2023, Pål Börjesson (WP1) contributed to an antology and seminar series on the topic "Values of the Forest – reflections from research", organised by Mittuniversitet, Sweden.



https://www.miun.se/Forskning/skogensvarden/

Later in March, Susanne Arvidsson (WP2), held a presentation at the annual Sustainable Finance conference (Hållbara Finanser), organised by Dagens Industri in Stockholm. The topic was "The flora and fauna – biodiversity the next big challenge for organisations". In October 2023 Henrik Smith (WP1) held a presentation for employees at SKANSKA Sweden during their annual Green Week on the topic was "Biodiversity in a changing world – why do we need to care?". The event is changing name to Forward focus, more information and links to capacity building can be found at skanska.se

At the Royal Swedish Academy of Agriculture and Forestry, Pål Börjesson (WP1) and Marie Stenseke (WP1) participated and held presentations in a Roundtable meeting with the minister of rural affairs.

#### **IPBES**

At the 7th meeting of the Pan-European stakeholder consultation for the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) in July, Marie Stenseke (WP1), held a presentation. She has a long engagement working for IPBES and has contributed to several reports.

IPBES performs regular assessments of knowledge on biodiversity and ecosystem services and how they are interlinked. In the fall of 2023, the next assessment on Business and Biodiversity started and end with a new report in late 2025. Susanne Arvidsson (WP2) was selected to co-lead the work on Chapter five titled "Businesses as key actors of change: options for action by business".

Chapter five addresses the role and responsibility of businesses in contributing to transformative change and sustainable development to achieve the 2050 Vision for Biodiversity. It will describe the motivations of, and challenges and opportunities faced by businesses in different sectors, including the financial sector, when taking action.

"I am excited to be given the opportunity to contribute to the great work done by IPBES in promoting the halting and reversing of biodiversity loss. Both businesses and the financial system are key actors in enabling transformative change and sustainable development. I hope my experience will be valuable for supporting businesses in adopting new efficient approaches to integrate biodiversity considerations in their financial decision making", says Susanne Arvidsson.



Mistra BIOPATH Programme Director Susanne Arvidsson is one of the experts, selected by the Multidisciplinary Expert Panel of IPBES, that will prepare the business and biodiversity assessment.

## Reaching out in relevant international arenas

#### COP15

During COP15, a special day was organised on Finance and Biodiversity. At an event by the European Investment Bank (EIB) and the European Environment Agency (EEA), Susanne Arvidsson (WP2) talked about the "Risk, return and the role of data in unlocking investments into nature".

The overall discussions focussed on the type, resolution and accessibility of data needed to unlock investments into nature, to track return and monitor asset risk from ecosystem degradation or biodiversity loss. Other discussion points were how data providers need to tailor their products (e.g indicators, earth observation products, indices) for the purposes of reporting, disclosure and valuation and return.

The challenges inherent in biodiversity monitoring (e.g. geographic specificity, resolution) and how this might be overcome/mitigated to unlock finance for nature were also a topic for this COP 15 virtual side event.



#### **BIOFIN**

The Biodiversity and Finance Initiative, BIOFIN, initiated in 2010 by the United Nations Development Programme (UNDP) and the European Commission (EC), is designed to develop and pilot a new methodology for national finance planning. It enables countries to implement their finance plans and prioritised finance solutions.

At a meeting held at the UK Department for Environment, Food and Rural Affairs, DEFRA in London where Nils Droste (WP3) and Julia Mao, PhD student WP3, Lund University, presented "Swedish approach to Biodiversity Expenditure Review".

# **European Business and Nature Summit 2022**

In October 2022, Viktor Elliot (WP2) presented "Integrating biodiversity consideration into the financial system" at the European Business and Biodiversity Summit in Brussels. The session on Committing to operate within the earth's limits: Collective action in an interconnected system, explored the landscape of existing initiatives that support business and finance on their biodiversity journey and help them to commit and progress towards achieving their commitments. The panelists discussed the need for collective action in an interconnected system to halt and reverse the loss of nature and explored what is needed to accelerate action.



Humberto Delgado Rosais the Director for Biodiversity, DG Environment, European Commission, sums up EBNS 2022.

# **European Business and Nature Summit 2023**

In October 2023, Ulrika Palme (WP1) attended the EU Business and Biodiversity Platform summit on Business and Nature, in Milanor. It gathered European business leaders, policymakers, researchers, and civil society for a two-day conference to empower companies to take transformative action. Several partner companies within BIOPATH participated, such as Orkla, Stora Enso, MDOTM as well as researcher Ulrika Engström Palme, Senior lecturer at Environmental Systems Analysis, Chalmers, active in WP1.



"There were many good take-aways EBNS, especially on how EU is steering towards increased awareness, knowledge and action for the conservation of biodiversity", says Ulrika Engström Palme (WP1)

## Reaching out in relevant national arenas

#### Sustainable Finance (Hållbara Finanser)

In March 2023, Susanne Arvidsson was a speaker and panelist at the annual event on Sustainable Finance (Hållbara Finanser) organised by Aktuell Hållbarhet and Dagens Industri, two major Swedish media organisations focussing on sustainability, business and financial news. The current trends and challenges are recurring topics and in 2023 there was a great interest in understanding more about biodiversity, especially after the Global Biodiversity Framework agreement (GBF) at the COP15 Kunming-Montreal conference in December 2022.

In the session on "Flora, fauna and the stock exchange – biodiversity is the next big issue in sustainability", Susanne Arvidsson gave an update from the research frontline and how the financial sector is acting on new frameworks, regulations and reporting directives. The TNFD framework under development and the upcoming EU regulations ESRS and CSRD was discussed throughout the day.

The conference gathers participants from large corporations, public authorities and agencies, banks and financial institutions, sustainability experts and strategists.



#### WWF

The World Economic forum has the last years listed the consequences of not acting on climate change, biodiversity loss and ecosystem collapse. The Dasgupta report 2021 argued for the need for alternative measures of economic development. In 2023, the Swedish WWF initiated a roundtable meeting

for discussions on how to measure economic growth and the relation between economics and nature. A first report was published in June and among the interviewed experts were Susanne Arvidsson stating that:

"Policy makers need to realise that this is a marathon, not a jogging exercise ... and if influential economic actors do not change fast enough, politics must take a greater responsibility."



Susanne Arvidsson in a panel on Biodiversity as the next big issue for business and finance at Hållbara Finanser 2023

## Reaching out in relevant regional arenas



Viktor Elliot (WP2), Lena Gipperth (WP3) and Ulrika Palme (WP1) at Vetenskapsfestivalen 2023.

#### Vetenskapsfestivalen 2023

At the International Science festival in Gothenburg in April 2023, all three work packages from Mistra BIOPATH were represented in a talk about challenges and opportunities for companies in their transition to integrate biodiversity and ecosystem integrity into their business models and activities.

At the the city library in Gothenburg, an audience of approximately 40 people listened to "How companies should care for biodiversity" with Viktor Elliot, Senior lecturer, University of Gothenburg, School of Business, Economics & Law, Lena Gipperth, Professor Environmental Law, University of Gothenburg and Ulrika Palme, Senior lecturer, Environmental Systems Analysis, Chalmers.

#### **Lund Sustainability Week 2023**

At the annual Sustainability Week in Lund, organised by the City of Lund and Lund University, Mistra BIOPATH held an open seminar on the topic: "Why should companies care about biodiversity?". At the Lund City Hall, an audience of approximately 50 persons listened to Mistra BIOPATH researchers and partners: Henrik Smith (WP1) and Susanne Arvidsson (WP2), Eva Vati, Sustainability strategist, Kraftringen and Lars Lundahl, Environmental Manager Orkla Foods.



#### **Lund University seminar series**

LU Land is a platform that gathers researchers and societal actors with the aim to jointly identify, discuss and find solutions to challenges related to an ecologically, economically, and socially sustainable land-use. The vision is to bridge the traditional borders between sectors and disciplines, and by the means of constructive dialogue and collaboration solve complex societal challenges on the road towards sustainable land-use. Biopath researchers contribute to several seminars.

## Internal and external communications

Communication, both internal and external, plays a critical role for augmenting the pathways of impact by Mistra BIOPATH. A communication strategy was formulated from the start, emphasizing the importance: to share information, knowledge and results effectively within the BIOPATH consortium as well as between the consortium and its various target groups in society.

#### Internal communications

The internal communication is a shared task of all work packages and task force although it is administered and supervised by the programme coordinator, Johanna Generosi. Using Teams as a platform, there are a number of channels, some open to all, whereas others are used for specific closed groups, sharing confidential information in projects, with the ambition to share findings to the whole consortia when finalised.

Internal communications also include a number of various online and physical meeting formats. BIOPATH Dialogues are open to all academics and partners for in-depth presentations on topics such as new reporting directives (GRI), new database initiatives (ENCORE). A series of lunch n'learn seminars will be launched on the many definitions gathered in the BIOPATH glossary, a work done mainly by the doctoral students and post-doctoral fellows.

Annual programme meetings gather the partners and are organised to be very interactive and focus on sharing insights and challenges. For the 2023 meeting in spring-time it coincided with the International Biodiversity Day and an excursion to the Lund Botanical garden was a much appreciated activity.

A mix of internal and external communication is distributed in the quarterly newsletter, open to external stakeholders as well. It contains a mix of news from the three workpages, upcoming events for the partners or for the public, news relevant to BIOPATH from the EU commission, IPBES, EBNS, WWF and similar organisations related to the challenges for business and biodiversity.

#### **External communications**

The website <u>www.mistrabiopath.se</u> communicates the overall programme plan, the organisation, the workpages, the people and partners involved and news, events, resources and outputs from Mistra BIOPATH.

The LinkedIn account is the main external sharing platform for the consortia, highlighting new outcomes, initiatives, events, and opportunities to engage with Mistra BIOPATH.

As presented in other parts of the annual report, the external communications have also focused on educational material and increasing the general understanding of the needs of biodiversity.



Guided tour of the highlights in Lund Botanical garden, 22 May, 2023

One such initiative was the piece of thought every day 1–24 December 2022, sharing a video a day on LinkedIn and the website on numerous aspects of biodiversity and its importance for its own sake, for human well-being, for society, economy, health and wealth.

The Crash course on key definitions, data sources, reporting directives, frameworks and global organisations, often referred to in the growing discourse on biodiversity and business, was launched in the spring of 2023, using both LinkedIn, newsletter and website for reaching out to partners and stakeholders.

The educational film A world that values nature is an example from November 2023 on using moving images to share not only information but also impactful images on the challenges and values of promoting biodiversity.

A network of communication managers from each partner organisation has been initiated to enhance the output of the research communication and educational material produced by Mistra BIOPATH.

















"Without biodiversity, which people are part of as

well, we have no place to flourish on this planet."

Jan Bebbington, Board member Mistra BIOPATH and Director of Pentland Centre for Sustainability in Business.

"Biodiversity provides us with an insurance. If the environment changes and our crops fail, then biodiversity offers other genomes, plants, species that we can perhaps use."

> Thomas Sterner, Professor Environmental Economics, University of Gothenburg (WP1)

"Biodiversity is a very critical aspect, and we need to make sure that we take it into account."

> Hellen Herk-Hansen, Vice President for Environment, Vattenfall (WP2)

"For financial markets that very much rest on the idea of long termism, biodiversity needs to be integrated as well as all other sustainability aspects."

> Catharina Belfrage Sahlstrand, Group Head of Sustainability and Climate actions, Handelsbanken (WP2)

"Biodiversity is absolutely central to our business model. If we do not manage, over the long term, to a positive contribution to biodiversity, we will not have a long term sustainable business model."

> Toby Croucher, Senior Vice President for Climate and Nature, Stora Enso

Quotes from BIOPATH's videos (youtube.com)

# **BIOPATH** in media

"När vi rör oss i samma riktning blir förändringen större" – Samordnare – Agenda 2030 (agenda 2030 samordnaren.se)

Sluter gapet mellan biologisk mångfald och finansiella systemet – Mistra

New research programme to boost energy sector's work for biological diversity (rwe.com)

Hur ska naturen värderas? Ny rapport på väg från IPBES - Lunds Universitet (cision.com)

Välkommen till Biologisk mångfald – det nya CO2 för finansmarknaden – Lunds Universitet (cision.com)

New research programme to boost energy sector's work for biological diversity (rwe.com)

220420 Kraftringen och samarbetspartners beviljas 50 miljoner kronor i forskningsprojekt om biologisk mångfald inom skog och biomassa | Kraftringen

Mistra finansierar forskning om hållbar finans med 50 miljoner kronor | Realtid

Enhancing biodiversity (scdi.se)

The importance of Biodiversity – Nudie Jeans

Mistra-arkiv - Sak & Liv (sakochliv.se)

MDOTM to Advise on AI within Mistra's \$5.5M Biodiversity Research Program | Financial IT

100 miljoner till forskning om biologisk mångfald -Science Faculty Magazine

50 miljoner till forskning om biologisk mångfald och det finansiella systemet | Lunds universitet

Miljoner till forskning om biologisk mångfald och finansiellt beslutsfattande | Göteborgs universitet (gu.se)

Storebrand är med och stöttar forskningsprojekt om biologisk mångfald – Risk & Försäkring (di.se)

Vad kostar biologisk mångfald | ATL

Miljonregn över forskning om ekologi och ekonomi - Skånska Dagbladet (skd.se)

25 nya forskningsenheter inom hållbarhet har startats sedan 2018 i Skåne – News Øresund Sverige (newsoresund.se)

Marie Stenseke fajtas för mer tvärvetenskaplig forskning Mistra

Ny rapport efterlyser nya mått på ekonomisk utveckling - Världsnaturfonden WWF

Forskare ska hjälpa näringslivet förstå biologisk mångfald (realtid.se)

Forskaren vill föra samman storföretag och natur: De är centrala – P4 Halland | Sveriges Radio

#### **Pressreleases**

Storebrand stöttar Lunds Universitets forskningsprojekt inom biologisk mångfald | Storebrand & SPP (mynewsdesk.com)

50 miljoner till forskning om biologisk mångfald och det finansiella systemet – Lunds Universitet (cision.com)

100 MSEK till forskning om biologisk mångfald och det finansiella systemet | Mistra, The Swedish Foundation for Strategic Environmental Research (mynewsdesk.com)



Susanne and Henrik. Photo: Sara Sällström



## **Publications and presentations**

#### Publications in international peer-reviewed journals

**Y. Baeckström**, **J. Carlsson Hauff** & **V. Elliot**. 2022. Wealthy individuals: Not to be overlooked when thinking ESG investment strategy. Journal of Financial Transformation, Capco Institute, vol. 56, pages 110–116.

**D. Silvestro**, **S. Goria**, **B. Groom**, **T. Sterner** & **A. Antonelli**. 2023. The 30 by 30 biodiversity commitment and financial disclosure: Metrics matter. Available at SSRN: https://ssrn.com/abstract=4594937 or http://dx.doi.org/10.2139/ssrn.4594937

## Oral presentations about BIOPATH research at scientific conferences

#### WP1:

- **J. Alkan Olsson**. The role of biodiversity in the finance sector-the current and/or future potential role of open biodiversity data. Living Norway Colloqium Ecological data network. 23 May 2023.
- **J. Alkan Olsso**n. Biodiversity and EU Green deal are these binding for cities?. Cities and Biodiversity UN convention. 5 October 2023.
- **C. R. V. Coelho**, **H. G. Smith**, **P. Börjesson**. Quantifying biodiversity with life cycle assessment for decision-making. Research Conference on Sustainable Development 2023. Lund, 7 November 2023.
- H. G. Smith. How to make an impact. LU Sustainability Conference. Lund, 7 October 2023.
- **W. Sidemo-Holm**, **J. Alkan Olsson**, **H. G. Smith**. Evaluating biodiversity assessment tools: enabling corporate decisions with reduced negative biodiversity impacts. Research Conference on Sustainable Development 2023. Lund, 7 November 2023.

#### WP2:

- **S. Arvidsson**. Are biodiversity considerations integrated in corporate reports? Knowledge for Sustainable Development. Lund, 7 November 2023.
- **S. Arvidsson**. Monetizing nature's contribution to people. The BECC and LU Land Grand Research Symposium: How fair and effective is the political process to decide and implement a post-2020 global biodiversity agenda? Lund, 25 November 2022.
- **Y. Baeckström**, **J. Carlsson Hauff**. Wealthy families and sustainable investment practices: An exploration of ESG decision making style. Sustainable Financial Innovation Centre (SFiC) Annual Conference. 25 November 2023.

#### WP3:

**J. Svensson**. How does the financial system shape public environmental goods in Sweden? An archetypical study examining the underlying patterns of biodiversity conservation governance. 6th International Research Workshop on Archetype Analysis in Sustainability Research. 7-9 June 2023.

#### Presentations at stakeholder relevant meetings

#### WP1 & TF:

- **P. Börjesson**. Skogens värden forskares reflektioner. Presentation at Mittuniversitetet. Östersund, 2 March 2023.
- **H. Smith**. Hur ska företagen bry sig om biologisk mångfald? Presentation at Stadshallen, Lund, 20 April 2023.
- **M. Stenseke**. Presentation at the 7th meeting of the Pan-European stakeholder consultation for the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). 3 July 2023.
- **H. Smith**. Biologisk mångfald i en föränderlig värld varför behöver vi bry oss? Presentation for employees of SKANSKA Sweden during their green week. 2 October 2023.
- **P. Börjesson** & **M. Stenseke**. Presentations and participation in a Roundtable meeting with the minister of rural affairs at the Royal Swedish Academy of Agriculture and Forestry. 5 October 2023.
- **M. Stenseke**. Presentation at a meeting for the School of Business, Economics and Law, University of Gothenburg alumni, 19 October 2023.

#### WP2:

- **V. Elliot**. Integrating biodiversity consideration into the financial system. European Business and Biodiversity Summit, Brussels, 18 October 2022.
- **S. Arvidsson**. Risk, return and the role of data in unlocking investments into nature. COP15 in Montreal finance and biodiversity day. Organizer EIB and EEA. 14 December 2022.

- **S. Arvidsson**. The flora and the fauna Biodiversity the next big challenge for organisations (Floran och faunan biodiversitet nästa stora svåra hållbarhetsfråga för organisationer). The Conference Sustainable Finance (Konferens Hållbara Finanser) organised by Dagens Industri. Stockholm, 16 March 2023.
- **S. Arvidsson**. Biodiversity: the key to resilient agri-food systems. Lund University PlantLink Day: Biodiversity: key to resilient agri-food systems. 5 October 2023.

#### WP3

- N. Droste. Presentation at the Centre for Innovation Research at Lund University. DATE
- **N. Droste** & **J. Mao**. Swedish approach to Biodiversity Expenditure Review. Presentation at UNDP BIOFIN meeting at DEFRA, London, 2023.

# Participation as chair, discussant or poster presentation at scientific conferences WP1-WP2:

**S. Arvidsson** and **H. Smith**. Organisation research seminar and participation as chair and moderator. Net negative and nature positive: Disclosure as a game changer or cheap talk? Lund, 11 November 2022.

#### Master theses

#### WP1

- **A. Gagné**. Biologisk mångfald I kraftledningsgator En fallstudie om energibolaget Kraftringens utmaning och utvecklingsmöjligheter att främja mångfalden i kraftledningsgator. Supervisor Johanna Alkan Olsson.
- **H. Andréasson**. Business & Biodiversity How businesses understand and work with biodiversity. Supervisor: Ulrika Engström Palme.
- **M. Christiansson** and T. Roos. Building materials and their impacts on biodiversity A comparison of wood and concrete building frames. Supervisors: Ulrika Engström Palme.
- **L. Albinson** and **M. Larsson**. Assessing impacts on biodiversity in the building sector A study on wood and concrete as building materials. Supervisor: Ulrika Engström Palme.
- **J. Hörnelius** and **M. Ljungsröm**. Ecovoltaics in Sweden Views on integrating measures for biodiversity in solar parks. Supervisor Ulrika Engström Palme.

#### WP2:

Investor Preference for Green Bonds: Empirical Evidence from China. Supervisor: Ylva Baeckström. King's College London, 2023

- M. Ögren and U. Ohlson. Supervisors: The journey of accounting for nature: A qualitative study of the strive to account for nature through translation of the TNFD framework from a Scandinavian Institutionalism perspective. Supervisor: Niklas Egels Sandén, co-supervisors Viktor Elliot & Mari Paananen. University of Gothenburg, 2023.
- **S. Ignatenko.** Nature's Hidden Asset: Exploring Investors' Awareness of Biodiversity. Supervisors Susanne Arvidsson & Fredrik NG Andersson. Lund University, 2023.
- **K. Wirdéus** and **M. Frövenholt**. Specificity in Non-Financial Disclosure Regulated by Directive 2014/95/EU. Supervisor Mari Paananen. University of Gothneburg, 2023

#### WP3:

V. Pehrsson. Skogsnäringens Ansvarstagande för den Biologiska Mångfalden. Supervisor N. Droste. Lund University, 2023.

#### **Bachelor theses**

#### WP1·

**R. Sandvik**. Hållbarhetscertifieringars potential att gynna biologisk mångfald. En studie på i vilken omfattning svenska hållbarhetscertifieringar gynnar biologisk mångfald inom jord- och skogsbruk. Supervisor: William Sidemo Holm. 2023

#### **WP3:**

- M. Morency. A Cost Benefit Analysis of Continuous Cover Forestry in Djurholmen, Skåne. Lund University, 2023.
- **E. Sternang Bengtsson**. A Socioeconomic Analysis of the Costs and Benefits Associated with Reduced Logging in Swedish Forestry. Lund University, 2023.
- **B. Blomqvist**. To clear-cut or not to clear-cut; Cost-benefit analyses of post-fire management approaches in the Ljusdal fire-complex. Lund University, 2023.

### **Partners**

#### Academic partners













Partners from industry, finance sector and public authorities





















### Handelsbanken









































