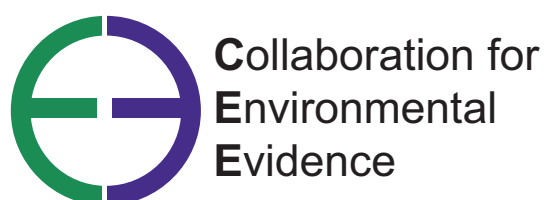


The First International Conference of the Collaboration for Environmental Evidence

Better Evidence, Better Decisions, Better Environment

Conference Booklet



25-27 August, 2016
Swedish Museum of Natural History
Frescativägen 40
Stockholm, Sweden

WELCOME

JOIN US ONLINE!
#envevidence2016
@EnvEvidence

The Collaboration for Environmental Evidence (CEE) has been in development, first as a concept and then as an operational organisation for over a decade: it's high time contributors and users got together and celebrate what we have achieved. This conference is a significant milestone in the growth of a global network of people interested in the production and use of evidence syntheses in environmental management. CEE is already having a significant impact on decision making with its guidance and standards for evidence review being widely cited and its journal and library of systematic reviews and maps acting as a source of reliable evidence. But there is much more to do. CEE now has six centres but we are still small and capacity building is a major priority. This conference has a focus on planning the future activities and structure of the collaboration and I hope you will enjoy contributing to this process.

Prof. Andrew Pullin

Chair of the Board of Trustees for the Collaboration for Environmental Evidence (CEE)

During its four years of operation, the Swedish CEE centre Mistra EviEM has met a lot of interest both from decision-makers needing a scientific basis for their efforts to improve the environment and from researchers willing to participate in evidence synthesis. Systematic reviews are acknowledged as an important link between science and management. One aim of our conference is to strengthen this link and deepen the knowledge of how to undertake and use systematic reviews. With participants from more than 15 countries around the world meeting at the Swedish Museum of Natural History, we hope you can take advantage of the opportunities for constructive and exciting dialogues, exchange of experiences and exploring ideas for the future development of CEE. EviEM is proud to be the organiser of the first international CEE conference, and we wish you a warm welcome to Stockholm.

Adj. Prof. Lisa Sennerby Forsse

Chair of the Executive Committee for the Mistra Council for Evidence-Based Environmental Management (EviEM)



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PROGRAMME

Wednesday, August 24

- 13.00 - 16.00 **Training I**
Wickman Room
Making research more reliable using lessons from systematic review
In this training session, participants will learn what lessons they can take from SRs to apply to their daily research to maximise reliability and demonstrate high calibre research synthesis. The half-day workshop (3 hours) will introduce systematic reviews and other forms of formalised evidence review (rapid evidence assessments and quick scoping reviews), describe the formalised methods required to undertake such a review, describe how participants can get involved with an evidence review, and discuss what lessons attendees can take away from systematic reviews to make their work more transparent, objective, repeatable and reliable. A mix of presentations and practical exercises will demonstrate the tools available to reviewers and also highlight the importance of choosing full systematic review methods when appropriate. The session will also stress the need for clear and transparent caveats regarding any method that is not a gold standard SR, and hence will attract participants from outside the current CEE network who can learn the benefits of CEE methods.
Presenters:
Neal Haddaway, MISTRA EviEM
Alexandra Collins, Imperial College London
Deborah Coughlin, Imperial College London
- 13.00 - 17.00 **Training II**
Room 525
CADIMA: an open-access online tool facilitating the evidence synthesis process
Due to the complexity of the systematic review process and the need for its thorough documentation, the Julius Kühn-Institut (JKI) and the Collaboration for Environmental Evidence (CEE) identified the need for the establishment of online tools that facilitate and guide review teams through the evidence synthesis process. In this session, the free supportive internet tools provided by the web portal CADIMA, www.cadima.info > Evidence synthesis tool, will be introduced and its functionality will be illustrated by practical examples: starting from the development of the protocol, the identification and selection of eligible studies, their critical appraisal, the extraction of data, and the presentation of evidence synthesis results.
Presenter: Christian Kohl, Julius Kühn-Institut
- 16.00 - 18.00 **Welcome Reception and Registration**
Outside large Auditorium
Have a look at the museum – guided tour at 18.00

Thursday, August 25

- 08.00 -
Outside Large
Auditorium **Registration**
- 09.00 - 09.15 **Welcome**
Large Auditorium
Gerald Post, CEE Board, Sif Johansson, EviEM and Jan-Olov Westerberg, Director at NRM. Welcome to the museum
- 09.15 - 09.45 **Keynote speaker**
Large Auditorium
The Collaboration for Environmental Evidence: Past, Present, but mostly Future
Prof. Andrew Pullin, Chair of CEE Trustees and Centre for Evidence-Based Conservation
- 09.45 - 10.15 **Keynote speaker**
Large Auditorium
Time for scientific knowledge brokers to collaborate with environmental managers in a more systematic way
Anna Jöborn, Director at Swedish Agency for Marine and Water management
- 10.15 - 10.45 **Coffee/Tea**
Outside Large Auditorium

Thursday, August 25 continued

10.45 - 12.25 Large Auditorium	Themed session 1 <i>Rules Of Engagement: setting out a framework of best practice for stakeholder engagement in systematic reviews and maps</i> <ol style="list-style-type: none"> 1. A toolbox for stakeholder engagement in evidence reviews, Neal Haddaway 2. Experiences with and Challenges of Stakeholder Engagement in Systematic Reviews on GMO Impact Topics, Armin Spök & Christian Kohl 3. Dealing with conflict and controversy in 'evidence-based forestry', Gillian Petrokofsky 4. Stakeholder involvement in systematic reviews: motivation, support and procedures, Sandy Oliver 5. Tailoring research outputs for the right audiences, Robert Watt 	
12.30 - 13.30 Linné Room	Lunch	
13.30 - 15.10 Small and Large Auditorium	Open session 1 (Large Auditorium) <ol style="list-style-type: none"> 1. Claire Blowers, Harper Adams University, UK 2. Steven Cooke, Carleton University Canada 3. Ann Eklund, Swedish University of Agricultural Sciences, Sweden 4. Monica Racovita, Alpen Adria University 	Open session 2 (Small Auditorium) <ol style="list-style-type: none"> 1. Rodrigo Arriagada, Pontificia Universidad Católica, Chile 2. Paulina Schulz, Ministry of the Environment, Chile 3. Matilda Miljand, Umeå University, Sweden 4. Kristian Kvist, Bangor University, UK and Nature Agency, Denmark 5. Stefan Olin, Lund University Sweden
15.10 - 16.00 Start in Large Auditorium Continuation and coffee In Linné Room	Get involved in the work of CEE. Presentation of the CEE Teams on <ol style="list-style-type: none"> 1. Guidelines; improving and updating the CEE guidelines. Andrew Pullin & Gillian Petrokofsky 2. Training; developing and coordinating training courses in conducting CEE Evidence Reviews. Teri Knight & Neal Haddaway 3. Monitoring and Evaluation; developing a common framework on how to evaluate the impact of CEE Evidence Reviews. Rob Richards & Ruth Stewart 4. Communication; developing CEE communication and dissemination strategy for CEE products and activities. Barbara Livoreil & Steven Cooke 5. Meetings; organising future CEE meetings and raising awareness of CEE at other meetings. Gerry Post & Sif Johansson 	
16.00 - 17.40 Large Auditorium	Themed Session 2 <i>How to Ensure Only High-Quality Systematic Reviews Get Published: Strategies from Medical and Chemical Risk Research</i> <ol style="list-style-type: none"> 1. Literature reviews published in toxicology journals: contemporary reporting practices, Paul Whaley 2. Assessing Risk of Bias in Systematic Reviews using the ROBIS tool, Penny Whiting 3. Methodological expectations in systematic review: raising the standard, Rachel Churchill 4. Systematic review and evidence use in the European Food Safety Authority context, Fulvio Barizzzone 	
18.15 - 19.00 -	Joint transportation with the Metro to the City Hall (map at the reception) Reception hosted by Stockholm City Guided tour in the City Hall and buffet	

Friday, August 26

09.00 - 09.40 Large Auditorium	Welcome Eva Thörnelöf, Swedish Environmental Protection Agency and EviEM Executive Committee	
	Keynote speaker <i>The European Environment Agency - reviewing environmental information for policy-making</i> Dr. Hans Bruyninckx, Director of the European Environment Agency (EEA)	
09.40 - 10.10 Large Auditorium	Presentation of Mistra Council for Evidence-based Environmental Management (EviEM), the Swedish CEE-Centre	
10.10 - 10.40 Outside Large Auditorium	Coffee/Tea	
10.40 - 12.20 Large Auditorium	Themed session 3 <i>Rapid review methods and their role in environmental management</i> <ol style="list-style-type: none"> 1. The use of Rapid Evidence Reviews in Policy and Practice Decision-Making – Experience from the Joint Water Evidence Group (JWEG), Alexandra Collins & Deborah Coughlin 2. A question typology and evidence needs for rapid reviews, Susan J. Nichols 3. Rapid reviews for rapid decisions: is it that simple?, Rob Richards 4. Reflecting on the range of ways in which we have adapted full systematic review methods to meet the demands of different stakeholders, Ruth Stewart 5. The Eco Evidence method and software for rapid reviews in environmental science and management, Angus J. Webb 	
12.20 - 13.20 Linné Room	Lunch and poster session	
13.20 - 15.00 Large and Small Auditorium	Open session 3 (Large Auditorium) <ol style="list-style-type: none"> 1. Abigail Graceson, Harper Adams University, UK 2. Emma J. McIntosh, University of Oxford, UK 3. Ullrika Sahlin, Lund University, Sweden 4. Sylvie Vanpeene, IRSTEA, France 5. Monica Racovita, Alpen Adria University 	Open session 4 (Small Auditorium) <ol style="list-style-type: none"> 1. Samantha H. Cheng, University of California, USA 2. Carina van Rooyen, University of Johannesburg, South Africa 3. Jessica C Walsh, Simon Fraser University, Canada 4. Ben Fagan-Watson, University of Westminster, UK 5. Nicholas R. Hart, George Washington University, USA
15.00 - 15.20 Outside Auditoriums	Coffee/Tea	
15.20 - 16.50 Rooms tbd	Parallel Roundtable Discussions <ol style="list-style-type: none"> 1. Biodiversity informatics enabling research data re-use for analysis validation (Anders Telenius) 2. Rapid review methods and their role in environmental management (Rob Richards) 3. Children's Investment Fund Foundation discussion on Climate Change (Megan Kennedy-Chouane) 	
18.00 - 18.30 - 23.00	Joint transportation by metro to the Nobel Museum (map at the reception) Tour and Conference Dinner in the Nobel Museum	

Saturday, August 27

09.00 - 09.50 Large Auditorium	Welcome Lisa Sennerby Forsse, Chair of the EviEM Executive Committee Keynote speaker <i>Collaborative approaches to collating our collective knowledge</i> Prof. Sandy Oliver, EPPI-Centre London
09.50 - 10.20 Outside Large Auditorium	Coffee/Tea
10.20 - 12.00 Large Auditorium	Themed Session 4 <i>Extending boundaries: Qualitative and mixed method evidence synthesis and their application to environmental management</i> <ol style="list-style-type: none">1. Dealing with social complexity: the emerging field of mixed-method systematic reviews, Rebecca Rees2. Thinking qualitatively! How to deal with “context” in your systematic review, Karin Hannes3. Qualitative synthesis in environmental management: how to go about subjectivity and validity issues, Romina Rodela4. Learning in support of social-ecological change: methodological challenges of a qualitative synthesis, Monika Suškevičs5. What evidence exists on the impact of governance type on the conservation effectiveness of forest protected areas? Knowledge base and evidence gaps, Biljana Macura
12.00 - 13.00 Large Auditorium	Better Evidence, Better Decisions, Better Environment – Looking Forward Panel discussion. Moderator: Johan Kuylensstierna, Director, Stockholm Environment Institute
13.00	Formal close of the Conference and brown bag lunch

KEYNOTE SPEAKERS



Prof. Andrew Pullin

Andrew is Chair of the Board of Trustees for the Collaboration for Environmental Evidence (CEE), Currently Professor of Evidence-Based Conservation and Director of the Centre for Evidence-Based Conservation at Bangor University, his background is in environmental science and conservation biology. Andrew is also Editor-in-Chief of the CEE Journal, Environmental Evidence, and has contributed to over 25 CEE Evidence Reviews.



Anna Jöborn

Anna is the Director of the Scientific Affairs Department at the Swedish Agency for Marine and Water Management (SwAM), which is a government agency that works for flourishing seas, lakes and streams for the benefit and enjoyment of all. Anna holds a Ph.D. in Aquatic Microbiology and has previously worked at IVL, the Swedish Environmental Research Institute.



Dr. Hans Bruyninckx

Dr Hans Bruyninckx became the Executive Director of the European Environment Agency on 1 June 2013. In 1996 he completed a PhD in international environmental politics at Colorado State University and since 2010 headed the HIVA Research Institute in Leuven which specialises in policy research. Over the last 20 years, he has conducted research in more than a dozen countries, in areas including environmental politics, climate change, and sustainable development.



Prof. Sandy Oliver

Sandy Oliver is Professor of Public Policy at UCL Institute of Education. For thirty years her interests have focused on the interaction between researchers and people making decisions in their professional and personal lives, largely through the conduct of systematic reviews. She is a member of the Board of the Campbell Collaboration and Cochrane editor with their Consumers and Communication Review Group. She works with the UK Department for International Development and the Alliance for Health Policy and Systems Research at WHO to build capacity in systematic reviewing in developing countries.

SESSION PROFILES WITH ABSTRACTS

KEYNOTE SPEAKERS

The Collaboration for Environmental Evidence: Past, Present, but mostly Future

Prof. Andrew Pullin

CEE and Centre for Evidence-Based Conservation, Bangor University, UK

The CEE was founded to address the problem of lack of accessible, good quality evidence to inform decision making in environmental management. It was evident that a gap existed between the community publishing scientific evidence and the community seeking evidence to inform their decisions. This was backed up by the experience of other sectors, particularly health, where a new movement had emerged to improve the evidence base for health interventions. Key early objectives of CEE were to adapt existing methodologies of evidence synthesis from other sectors to key questions in environmental management, to create standards of conduct for evidence synthesis and to create a global network seeking to conduct and disseminate findings of high-quality systematic reviews. CEE has come a long way to reach the milestone of its first international conference. Its guidelines for evidence reviews are widely used, it has its own journal and library of CEE endorsed systematic reviews and maps. It has six centres around the globe and an increasing number of contributors. Now that we have formed this platform and community, CEE is in a position to make a significant contribution to improving environmental management. This talk will present a personal view of the potential of CEE and the key challenges to be faced if this potential is to be realised.

Thursday, August 25, 9.15-9.45, Large Auditorium

Time for scientific knowledge brokers to collaborate with environmental managers in a more systematic way

Anna Jöborn

Science Affairs Department, Swedish Agency for Marine and Water Management, Gothenburg, Sweden

We face a number of challenges in today's society. Many human activities have a negative impact on ecosystems. Governance of common pool resources is not easy and we need support from the scientific community. The price-label for mitigation and restoration of damaged ecosystems is often very high. Therefore, we cannot base management on opinions and personal views. We presuppose a scientific sound base to make sure we take the right actions and handle our funds responsibly. In many cases there is a wealth of research publications to dig into, but we do not know the substance or key conclusions that are useful for us as managers. Systematic environmental valuation can in a number of cases give us this advice on which methods are the best for specific purposes. A closer collaboration between science and policy will provide better knowledge, for better decisions in environmental policy making, now and in the future.

Thursday, August 25, 9.45-10.15, Large Auditorium

The European Environment Agency - reviewing environmental information for policy-making

Dr. Hans Bruyninckx

European Environment Agency, Copenhagen, Denmark

Consolidating, reviewing and assessing data and information in order to support sustainable development is at the core of the European Environment Agency's (EEA) mandate. To fully carry out its role as one of the main custodians of environmental knowledge in Europe, the EEA relies on strong networks. How does the EEA manage and review its knowledge base? What are good ways of communicating environmental information? And how can environmental information contribute to policy evaluation and underpin policy-making? In his keynote speech, the Executive Director of the EEA, Dr Hans Bruyninckx, will look to answer these questions. This will be based on the EEA's experience with assessing the state of Europe's environment in an evolving policy context.

Friday, August 26, 9.10-9.40, Large Auditorium

Collaborative approaches to collating our collective knowledge

Prof. Sandy Oliver

EPPI Centre, London, UK

When questions are posed by policy makers, it is almost inevitable that efforts to answer them from existing research will require navigating multiple academic disciplines. Academic conventions, rather than providing a guide to the work, present barriers to be overcome. Researchers are required to step outside their comfort zones to navigate unfamiliar literatures, access multiple libraries, translate exclusive language, and debate different methodologies and understandings with each other and with people who can make use of the findings. Overcoming these barriers to construct a single coherent synthesis requires creating a conceptual framework that cuts across different research methods and bodies of knowledge. Each member of the team bringing specialist skills is necessary, but not sufficient. They must also appreciate what others have to offer. Getting to know each other's expertise and recognising the significance of one's own areas of ignorance takes time and patience; progress is a matter of trial and error. The rewards are better use of the existing literature; more complete and coherent evidence; and the ability to move into new fields and to support novice review teams tackling their own specialist areas systematically. These challenges and achievements will be illustrated by reviews from environmental science and elsewhere.

Saturday, August 27, 9.10-9.50, Large Auditorium

Rules of engagement: setting out a framework of best practice for stakeholder engagement in systematic reviews and maps

Thursday, August 25, 10.45-12.25, Large Auditorium

Organiser:

Neal Haddaway, Mistra EviEM, Stockholm Environment Institute

Moderator:

Rebecca Rees, UCL Institute of Education

Stakeholder engagement (SE) in conservation projects is recognised as a critical step in ensuring success. SE can increase intervention efficacy, particularly where success relates to uptake of activities by practitioners. Similarly, evidence reviews benefit greatly from thoughtful, open-minded SE. SE provides several potential benefits, including; greater public acceptance, higher likelihood of intervention success, better/more targeted communication of findings, and greater likelihood of impacts on decision-making. However, SE is associated with several challenges, including; increased resource demands and requirements for transparency, potential for marginalising minorities and favouring vocal majorities, biased representation, and tokenistic engagement. Here, systematic reviewers outline their experiences and suggest best practices in stakeholder engagement and evidence synthesis.

Session lineup

A toolbox for stakeholder engagement in evidence reviews

Neal Haddaway, Mistra EviEM

Experiences with and Challenges of Stakeholder Engagement in Systematic Reviews on GMO Impact Topics

Armin Spök, Alpen-Adria Universität, and Christian Kohl, Julius Kühn-Institut

Dealing with conflict and controversy in 'evidence-based forestry'

Gillian Petrokofsky, University of Oxford

Stakeholder involvement in systematic reviews: motivation, support and procedures

Sandy Oliver, EPPI Centre

Tailoring research outputs for the right audiences

Robert Watt, Stockholm Environment Institute

A toolbox for stakeholder engagement in evidence reviews

Neal Haddaway

Mistra EviEM, Stockholm Environment Institute, Stockholm, Sweden

Effective stakeholder engagement (SE) is a vital part of all systematic reviews. From formulating the right question to address to communicating the results in the right way, engaging with stakeholders should be undertaken in a transparent, open and thoughtful way. Here we present a toolbox for SE produced as part of the CEE SE Methods Group. We provide best practice guidance for those wishing to involve stakeholders, emphasising key considerations and pitfalls along the way. By selecting the most appropriate tools from within this guidance systematic reviewers can help to maximise relevance, stakeholder acceptance, and uptake of their reviews.

Experiences with and Challenges of Stakeholder Engagement in Systematic Reviews on GMO Impact Topics

Armin Spök¹, Sandra Karner¹, Gloria Adduci¹, Monica Racovita¹, Greet Smets³, Patrick Rüdelsheim³, Christian Kohl², Ralf Wilhelm² and Joachim Schiemann²

¹ STS - Institute of Science, Technology and Society Studies, Alpen-Adria Universität Klagenfurt and Wien-Graz and IFZ-Inter-University Research Centre for Technology, Work and Culture, Graz, Austria, ² Institute for Biosafety in Plant Biotechnology, Julius Kühn-Institut, Quedlinburg, Germany, ³ Perseus BVBA, Zwijnaarde, Belgium


Assessing health, environmental and other impacts of genetically modified organisms (GMOs) has been a long-standing controversial issue in many countries. Particularly in the EU, views can be quite different between Member States as well as between stakeholder groups. In response to this challenge, stakeholder engagement has gained importance in GMO impact assessment. Against this backdrop the recently finished EU funded project GRACE (www.grace-fp7.eu), aiming to explore the use of the systematic review method for GMO impact assessment and research, had a strong emphasis on stakeholder engagement and transparency. In the course of 14 systematic reviews or maps on health, environmental or socioeconomic impacts, stakeholders were systematically engaged via workshops, written consultations and online questionnaires. This paper will present the approach used, discuss the experiences gained, highlight the specific challenges for stakeholder engagement in this highly controversial field, and draw lessons for future engagement exercises.

Dealing with conflict and controversy in 'evidence-based forestry'

Gillian Petrokofsky

University of Oxford, UK

Using a broad definition of a 'stakeholder' in evidence-informed forestry as anyone who affects or is affected by the policies or practices covered by the proposed systematic project, this presentation discusses experiences from three perspectives. First, experiences with two stakeholder engagement activities designed to explore the possibilities of engaging the widest possible stakeholder base ('crowd-sourcing' ideas) as a viable method of developing priority questions for policy and systematic review, one UK-based, the other global. Secondly, benefits and biases in working with a narrower tranche of stakeholders (the 'known knowns') in framing and conducting a systematic review. Thirdly, active dissemination of review findings to stakeholders (the 'unknown knowns') and the difficulty of post-review engagement.



Themed session 1: Rules of engagement: setting out a framework of best practice for stakeholder engagement in systematic reviews and maps

Stakeholder involvement in systematic reviews: motivation, support and procedures

Sandy Oliver

EPPI Centre, London, UK

Increasing stakeholder involvement in systematic reviews is part of a wider social movement of more inclusive approaches to conducting research. Our experience of public involvement in research gave us opportunities to reflect on the drivers, processes and impacts. Greater learning specifically about policy involvement has come from interviewing both policy makers and systematic reviewers about systematic reviews and working together. We identified: institutional mechanisms that bring the worlds of policy and research closer to create more policy relevant systematic reviews; four review production models to suit different situations; and communication methods for collective analysis to shape policy relevant review questions.

Tailoring research outputs for the right audiences

Robert Watt

Stockholm Environment Institute, Stockholm, Sweden

From “big data” to micro-blogs, the world is in the midst of a communications revolution. At a time when we are exposed to so much babble, listening and discernment are at a premium. Successful research communication is not just about being heard: it is based on building relationships, requires an authentic voice and an invitation to participate in conversation. It's a two-way, interactive process. Communicators and researchers can start by co-designing projects so that outreach activities are embedded in projects from concept to execution. Drawing on examples, practical methods and the Responsible Research and Innovation toolkit, we can raise the bar for science-policy-communication so that engagement and dialogue with public, policy makers and business is second nature.

THEMED SESSION 2

How to ensure only high-quality systematic reviews get published: strategies from medical and chemical risk research

Thursday, August 25, 16.00-17.40, Large Auditorium

Organiser:

Paul Whaley, Lancaster University

Moderator:

Neal Haddaway, Mistra EviEM, Stockholm Environment Institute

In chemical risk research many published evidence syntheses, whether traditional or systematic, either fail to report information necessary for appraising the credibility of their findings and/or use invalid methods for synthesising evidence. This makes it difficult to be confident that policy decisions based on such reviews are actually evidence-based. Here we present empirical evidence of methodological shortcomings in reviews published in chemical risk research and look at how best practice standards applied during the conduct and peer-review process can improve the quality of published evidence syntheses, with practical examples from European chemical regulators, industry consultants, and the Cochrane Collaboration.

Session lineup

Literature reviews published in toxicology journals: contemporary reporting practices

Paul Whaley, Lancaster University

Assessing Risk of Bias in Systematic Reviews using the ROBIS tool

Penny Whiting, University of Bristol

Methodological expectations in systematic review: raising the standard

Rachel Churchill, University of York

Systematic review and evidence use in the European Food Safety Authority context

Fulvio Barizzzone, European Food Safety Authority

Facilitated discussion

Literature reviews published in toxicology journals: contemporary reporting practices

Paul Whaley, Graham Pattle and Crispin Halsall

Lancaster Environment Centre, Lancaster University, UK

Here we present the REQUEST toolkit for assessing the quality of reporting practices in literature reviews published in toxicology and chemical risk assessment. Using the toolkit to assess reporting practices in published literature reviews from January 2014 to December 2015 shows systemic shortcomings in reporting of literature reviews which seriously undermine the ability of the reader to appraise the credibility of their results. The failure of normal indicators of quality, such as being published in a high-impact journal, adherence to PRISMA guidelines or claiming to conform to systematic review practices, to significantly affect publication standards suggests strong need for reforms to publishing practices. We make a number of recommendations as to what these reforms should address.

Assessing Risk of Bias in Systematic Reviews using the ROBIS tool

Penny Whiting¹ and Rachel Churchill²

¹ NIHR CLAHRC West, University Hospitals Bristol NHS Foundation Trust, Bristol and School of Social and Community Medicine, University of Bristol, UK, ² Evidence Synthesis and Cochrane Common Mental Disorders Group, Centre for Reviews and Dissemination, University of York, UK

Systematic reviews are now generally consulted as the main source of evidence for the effects of interventions. Systematic flaws or limitations in the design or conduct of the review have the potential to bias results. The ROBIS tool was designed to assess the risk of bias in a systematic review. Although ROBIS was developed primarily for assessment of reviews in healthcare settings, it can also be applied to reviews in other areas including environmental evidence. ROBIS consists of five domains: (1) study eligibility criteria, (2) identification and selection of studies, (3) data collection and study appraisal, (4) synthesis and findings, and (5) interpretation. This session will introduce ROBIS and illustrate how it can be applied to systematic reviews of environmental evidence. We will show how the ROBIS tool can be used as part of the peer review process to ensure high-quality feedback to authors and publication of only high-quality systematic reviews.

Methodological expectations in systematic review: raising the standard

Rachel Churchill

Evidence Synthesis and Cochrane Common Mental Disorders Group, Centre for Reviews and Dissemination, University of York, UK

Systematic reviews (SRs) often vary in the quality of their conduct and reporting, in spite of wide availability of guidance for researchers on how they should be planned and written up. Cochrane Reviews are seen as exemplifying best practice in the quality of both their conduct and reporting. To maintain this position and ensure consistency, Cochrane developed "Methodological Expectations for Cochrane Intervention Reviews" (MECIR), providing standards to guide the production of all Cochrane reviews. MECIR standards cover expectations around the conduct and reporting of all stages of a Cochrane review, from establishing the research question(s) and eligibility criteria for including studies, to summarising review findings and drawing conclusions. This session will introduce the MECIR standards, describe how they are developed, and describe their implementation in the stages of the production and publication of Cochrane Reviews. We will also consider the relevance of these standards to different disciplinary contexts.

Systematic review and evidence use in the European Food Safety Authority context

Elisa Aiassa, Fulvio Barizzzone, Laura Ciccolallo, Ana García, Didier Verloo and Laura Martino

European Food Safety Authority, Parma, Italy

The European Food Safety Authority (EFSA) is the European Union institution providing independent scientific advice on food and feed safety. The mandates received by EFSA often imply retrieving and integrating evidence from literature to answer complex questions in different fields. Here, we focus on the use of systematic review methods (SR) in EFSA and the agency's approach to dealing with scientific evidence. Past and current EFSA activities in the SR field will be presented; in particular, the principles for dealing with data and evidence recently defined by EFSA in the PROMETHEUS project ("PROmoting METHods for Evidence Use in Scientific assessments") will be discussed together with their relation to SR. The EFSA process for collecting, appraising, analysing and integrating data and evidence, currently in its pilot phase, will be outlined along with case-studies. Additional on-going EFSA projects in the field of evidence use, future plans and methodological challenges will be discussed.

THEMED SESSION 3

Rapid review methods and their role in environmental management

Friday, August 26, 10.40-12.20, Large Auditorium

Organisers:

Rob Richards, Centre for Evidence Informed Policy and Practice

Ruth Stewart, University of Johannesburg

Susan J. Nichols, University of Canberra

Moderator:

Biljana Macura, Mistra EviEM, Stockholm Environment Institute

CEE systematic reviews are considered a gold standard in evidence review methodology but they may consume considerable time and resources. Rapid review methods for evidence synthesis are gaining considerable recognition as a way to reduce decision risk within the timeframes constraints and resources available for environmental management decisions. Given the attractiveness of rapid review approaches, an understanding of potential bias and/or implications for reliability, is essential. This session will explore rapid review approaches; we invite submissions from researchers and practitioners who have developed or applied rapid review methods, with presentations focusing on describing the method, and their strengths and weaknesses.

Session lineup

The use of Rapid Evidence Reviews in Policy and Practice Decision-Making – Experience from the Joint Water Evidence Group (JWEG)

Alexandra Collins, Imperial College London, and Deborah Coughlin, Consultant

A question typology and evidence needs for rapid reviews

Susan J. Nichols, University of Canberra

Rapid reviews for rapid decisions: is it that simple?

Rob Richards, Evidentiary Pty Ltd

Reflecting on the range of ways in which we have adapted full systematic review methods to meet the demands of different stakeholders

Ruth Stewart, CEE Johannesburg and EPPI Centre

The Eco Evidence method and software for rapid reviews in environmental science and management

Angus J. Webb, University of Melbourne

The use of Rapid Evidence Reviews in Policy and Practice Decision-Making – Experience from the Joint Water Evidence Group (JWEG)

Alexandra Collins¹ and Deborah Coughlin²

¹ Imperial College, London, UK, ² Consultant

The need for policy and practice that is informed by an objective review of the evidence base is being increasingly recognised. However, even with significant research investment, there is sometimes a lack of consideration of what the available evidence on a topic presents, creating challenges for decision makers. JWEG's work with the UK Department for the Environment, Food and Rural Affairs, delivery agencies, and external partners has created a unique position bridging the gap between the precise needs of the end-user and the wealth of expertise delivered by academic research groups. This has allowed the development of methods which can search for, review and synthesise evidence in a systematic and transparent manner whilst ensuring the delivery of high-impact outputs which meet the needs of decision makers. This talk will introduce the methods for rapid reviews that have been developed and share experiences of working at the science-policy and practice interface.

A question typology and evidence needs for rapid reviews

Susan J. Nichols¹ and Rob Richards²

¹ Institute for Applied Ecology, University of Canberra, Australia, ² Evidentiary Pty Ltd, Melbourne, Australia

Well informed decision-making in sustainable environmental management requires classification and synthesis of many types of information and an assessment of the 'fit-for-purpose' quality, relevance or suitability of evidence. For consistent interpretation and rapid implementation, an evidence classification system should be conceptually simple to understand and apply. We built a framework around an understanding of the relationships between question types, evidence needs, and study-design characteristics that yield suitable evidence. The process begins with a question typology describing five key categories of scientific data and information types as candidates for 'evidence' i.e. raw data, data collations or summaries, secondary information, information derived from the analysis of cause-effect relationships, and model outputs. These categories are then applied within a framework to rapidly classify evidence for relevance, quality and suitability. Our framework assists in addressing the 'context dependency' of questions and evidence, which is at the core of understanding 'better' evidence for environmental decisions.

Rapid reviews for rapid decisions: is it that simple?

Rob Richards

Evidentiary Pty Ltd, Melbourne, Australia

The demand for more rapid evidence synthesis approaches has been largely driven by a need to meet the time and resource constraints of decision making needs such as policy development and on-ground investments. While these decisions may have rapid timeframes, the desired reliability of evidence to inform these decisions often remains high. In order to effectively align the decision needs and the amount of investment in evidence synthesis a number of factors need to be considered including the decision context, the desired level of confidence, the resources available and how the evidence will be used in the decision making process. Recent examples will be drawn on during this session to stimulate further discussion on how a simple decision support tool may be developed to assist decision makers in determining what level and type of investment in evidence synthesis is most appropriate for their needs.

Reflecting on the range of ways in which we have adapted full systematic review methods to meet the demands of different stakeholders

Ruth Stewart^{1,2}, Natalie Rebelo Da Silva¹ and Carina van Rooyen¹

¹ Collaboration for Environmental Evidence's Johannesburg Centre, University of Johannesburg, South Africa

² EPPI-Centre, University College London, UK

Systematic reviews, including CEE reviews, require considerable resources and time to complete. It is not surprising therefore that a number of adaptations are regularly employed in what are often described as 'rapid reviews'. Our team at the University of Johannesburg has been conducting reviews and other forms of evidence syntheses for 6 years. This presentation will describe the range of methods used by our team over this period, including full reviews, but also taking a number of steps to try and speed up the process. This has included limiting our reviews to evidence from certain regions or countries, avoiding formal publication routes, mapping (rather than reviewing) the evidence, and conducting systematic overviews of published reviews. We will reflect on the advantages and disadvantages of each of the 'short-cuts' we have taken, including consideration of the methodological implications, as well as the professional and policy consequences.

The Eco Evidence method and software for rapid reviews in environmental science and management

Angus J. Webb¹ and Susan J. Nichols²

¹ University of Melbourne, Australia, ² University of Canberra, Australia

Informed decision-making and understanding in environmental science and management relies on knowledge of causal relationships between drivers and ecological endpoints. However, causality is difficult to demonstrate in natural systems. The Eco Evidence method for rapid review was developed as a way of using the scientific literature, as a huge and rapidly growing (but underused) resource, to assess questions of causality in environmental science and management. Uniquely among methods for environmental rapid (and systematic) review, Eco Evidence is supported by software. This consists of an on-line database for storing and sharing evidence from the literature, and a desktop module for conducting analyses. We will outline the Eco Evidence method and illustrate the accompanying software. The method has the same philosophy as systematic review, but has several departures from classic methods that are designed to reduce the workload in reviews while maintaining rigour – the primary motivation for all rapid evidence assessment methods.

Extending boundaries: Qualitative and mixed method evidence synthesis and their application to environmental management

Saturday, August 27, 10.20-12.00, Large Auditorium

Organisers:

Biljana Macura, Mistra EviEM, Stockholm Environment Institute

Monika Suškevičs, Stockholm Resilience Centre and Estonian University of Life Sciences

Moderator:

Matilda Miljand, Umeå University

Many systematic reviews in environmental management have repeatedly reported a lack or low quality of available (quantitative) evidence to sufficiently inform either policy or practice. In such cases, qualitative evidence can be synthesized and used to support the decision-making or increase the impact of quantitative syntheses. This session will discuss the application and use of selected review methods for synthesis of qualitative evidence relevant to the field of environmental management, like meta-ethnography, meta-narrative, and mixed method approach. Furthermore, presenters will share their experience on methodological and epistemological challenges in synthesizing qualitative research or integrating qualitative and quantitative evidence.

Session lineup

Dealing with social complexity: the emerging field of mixed-method systematic reviews

Rebecca Rees, EPPI Centre

Thinking qualitatively! How to deal with “context” in your systematic review

Karin Hannes, KU Leuven

Qualitative synthesis in environmental management: how to go about subjectivity and validity issues

Romina Rodela, Södertörn University

Learning in support of social-ecological change: methodological challenges of a qualitative synthesis

Monika Suškevičs, Stockholm Resilience Centre and Estonian University of Life Sciences

What evidence exists on the impact of governance type on the conservation effectiveness of forest protected areas? Knowledge base and evidence gaps

Biljana Macura, Mistra EviEM

Dealing with social complexity: the emerging field of mixed-method systematic reviews

Rebecca Rees

EPPI-Centre, Department of Social Science, UCL Institute of Education, University College London, UK

Decision-makers who deal with complex social phenomena often have concerns that go beyond or precede ‘what works’. They can want to know why and how interventions vary in their impacts. They may want to better understand the nature of social or system problems and proffered solutions before examining particular interventions. On top of the complexities of social contexts and multiple questions, systematic reviewers can find that the available research data is patchy and diverse. Mixed-methods reviews can be seen as a potential solution to these challenges in that they aim to help different kinds of data ‘speak’ to one another and help us see social phenomena from different directions. In this presentation I will use examples of systematic reviews from the complex worlds of environmental management and elsewhere to illustrate a number of mixed-methods approaches and the outputs that they can produce.

Thinking qualitatively! How to deal with “context” in your systematic review

Karin Hannes

Social Research Methodology Group, Centre for Sociological Research, KU Leuven, Belgium

Outcome measures of interventions are affected by differences in setting, type of providers, participants and country related differences on an economic, social, political or cultural level. The impact of context is important to consider, both in primary and meta-level evaluations. The failure of a program may relate to its intrinsic qualities. However, failure of a program or unexplained variability between results from primary studies may also be related to contextual characteristics. These impact on the outcome measures. We outline three different approaches on how to deal with context in your systematic review project: a variable type of approach, a theoretical approach and an approach that includes a qualitative component in a systematic review. These will be illustrated with worked examples. We discuss the challenges and limitations of each approach and offer a fourth option in the conduct of context-specific reviews.

Qualitative synthesis in environmental management: how to go about subjectivity and validity issues

Romina Rodela

Södertörn University, Sweden

Environmental and natural resource management is a research domain where it is common that scholars approach research questions with data and examples from the field. This literature often is issue driven as it discusses real world problems/issues with the aim to seek solutions to these (problem solving) and advance the conceptual and theoretical agenda. As a result, studies are often descriptive and explorative. Also, analyses are highly contextualised; cases are discussed with attention to ecological, social and political aspects which might be unique to that specific locality. While these features allow that a good level of detail, these also bring forward a few issues. Given current demands for research synthesis - gathering literature to extract knowledge and produce a meta-synthesis - two are issues considered here. One is subjectivity involved in the choices researchers make (and the reasons for these) about research design and its implementation. It is common that research plans change when issues emerge, but it is less common this to be reported leaving out relevant information. There is also a degree of subjectivity involved at the later stage of data extraction and processing which is seldom discussed. The second issue is validity the degree to which a test, or assessment, is measuring what the researchers expect it to measure. The drive for problem-solving that characterises this body of works went at the detriment of conceptual aspects involved in this task - there is a lack of rigour in testing and concepts are often applied loosely. How shall we produce research synthesis from papers that state to be using a given construct, but are then making different choices in how to make it operational and measures use?

Themed session 4: Extending boundaries: Qualitative
and mixed method evidence synthesis and their
application to environmental management

Learning in support of social-ecological change: methodological challenges of a qualitative synthesis

Monika Suškevičs^{1,2}, Thomas Hahn¹, Romina Rodela^{3,6}, Biljana Macura⁴ and Claudia Pahl-Wostl⁵

¹ Stockholm Resilience Centre, Stockholm, Sweden, ² Estonian University of Life Sciences, Estonia, ³ Södertörn University, Sweden, ⁴ Management Institute, Stockholm, Sweden, ⁵ University of Osnabrück, Germany, ⁶ Wageningen University and Research Centre, the Netherlands

We reflect upon a set of methodological challenges encountered when conducting a qualitative meta-synthesis, combining principles from systematic review, narrative, framework and thematic synthesis. We aimed to synthesize the ways in which selected empirical literature (N= 52) constructs (1) expectations towards and manifestations of learning outcomes in natural resources management (NRM), and (2) causal links between learning processes, their outcomes and the resultant manifestations. We searched Web of Science with a set of English language search terms. We selected and coded 52 relevant peer-reviewed empirical studies examining learning effects in the NRM context. Working in between a realist and interpretivist-approach, our main methodological challenges related to (i) study inclusion (balance between retrieving a sufficient set of cases which is still qualitatively manageable) and (ii) data synthesis: the conceptual diversity across studies poses a challenge to comparability, but also to generalization while maintaining the integrity of individual studies. We describe our strategies to address such challenges in qualitative syntheses.

What evidence exists on the impact of governance type on the conservation effectiveness of forest protected areas? Knowledge base and evidence gaps

Biljana Macura^{1,2,3}, Laura Secco¹ and Andrew S. Pullin²

¹ Department of Land, Environment, Agriculture and Forestry, University of Padova, Italy, ² Centre for Evidence-Based Conservation, School of Environment, Natural Resources and Geography, Bangor University, UK, ³ Mistra EviEM, Stockholm Environment Institute, Stockholm, Sweden

Knowledge synthesis on how types of local governance and decision-making modes may influence conservation outcomes of forest protected areas is lacking. This work maps the available qualitative and quantitative evidence from a large number and variety of sources to answer 'What evidence exists on the impact of governance type on the conservation effectiveness of forest protected areas?' Evidence was collated from multiple sources, academic and grey literature, using English search terms and applying no geographical limitations. Included studies were critically appraised for internal validity. We identified 57 relevant studies across 66 articles. The evidence base is limited in terms of size, quality and geographical area and information on governance was rarely sufficient. Included studies frequently lack baseline, appropriate comparator or counterfactual to establish strong causal relationships between forest PAs with a particular governance type and a specific outcome. Moreover, most of the studies assess only one, primarily ecological, outcome and there were no studies measuring spill-over effects.

Session lineup

A novel use of systematic mapping to inform design of multifunctional buffer strips on farmland

Claire Blowers, Harper Adams University

Experimental biology underpins an evidence-based approach to conservation

Steven J. Cooke, Carleton University

What works? Reviewing the effectiveness of interventions to reduce livestock predation

Ann Eklund, Swedish University of Agricultural Sciences

What are the non-food impacts of GM crop cultivation on farmers' health? Systematic Review

Monica Racovita, Alpen Adria University

A novel use of systematic mapping to inform design of multifunctional buffer strips on farmland

Claire Blowers¹, Nicola Randall¹, Andrew Wilcox¹ and Heidi Cunningham²

¹ Harper Adams University, Newport, Shropshire, UK, ² Syngenta, Jealott's Hill International Research Centre, Bracknell, Berkshire, UK

Vegetative strips on farmland field margins can mitigate the effects of agricultural intensification and support ecosystem services including water quality protection, pollination and bio-control. Recent reviews highlight the need to support multiple ecosystem services from one strip. This study used systematic mapping methodology to collate existing research evidence on plant traits that deliver water quality protection, and support pollinators and natural enemies of crop pests. Evidence was collated from a range of sources of published and grey literature. 25,400 identified articles were screened using an inclusion criteria at title, abstract and full text. Forty four relevant articles were mapped, coded and critically appraised. The systematic map identified 26 plant traits for pollinator support, 11 for natural enemies and 19 for water quality protection, including floral display size, root system and leaf area. These plant traits were combined with plant community characteristics to rank UK native, widely-geographically distributed, perennial plant species for inclusion within a multifunctional seed mix. Further primary research is needed to identify more plant traits for natural enemy support and to identify specific plant species morphometrics for the plant traits of interest. We believe this novel method of design will enable more elective provision of multiple ecosystem services in buffer strips.

Experimental biology underpins an evidence-based approach to conservation

Steven J. Cooke¹, Neal Haddaway² and Craig Franklin³

¹ Canadian Centre for Evidence-Based Conservation, Carleton University, Ottawa, Canada, ² Mistra EviEM, Stockholm Environment Institute, Stockholm, Sweden, ³ University of Queensland, Brisbane, Australia

Policy development and management decisions should be based upon the best available evidence. In recent years, approaches to evidence synthesis once limited to the medical realm (such as systematic reviews) have been applied to conservation with great benefit. Systematic reviews involve a critical appraisal of evidence given that some studies simply lack the rigour (e.g., experimental, technical, analytical) to justify their conclusions; such papers are excluded from systematic reviews. One of the strengths of conservation physiology is the reliance on experimental approaches that help to establish cause and effect relationships. Indeed, experimental biology more broadly has much to offer in terms of building the evidence base needed to inform policy and management options related to pressing issues such as enacting endangered species recovery plans or in evaluating the effectiveness of different conservation interventions. This presentation will explore the role of experimental biology in evidence-based conservation with a candid discussion of key considerations for the critical appraisal phase of evidence.

What works? Reviewing the effectiveness of interventions to reduce livestock predation

Ann Eklund¹, Jens Frank¹, José Vincente Lopez Bao^{1,2}, Mahdiah Touriani and Adrian Treves³

¹ Swedish University of Agricultural Sciences, Grimsö Research Station, Riddarhyttan, Sweden, ² Research Unit of Biodiversity (UO/CSIC/PA), Oviedo University, Spain, ³ Nelson Institute for Environmental Studies, University of Wisconsin, Madison, USA

Predation on domestic animals by large carnivore and preventing predation drives carnivore management worldwide. The consequences of making the wrong choice of intervention can be very expensive, conflict-ridden, and a matter of life or death to domestic animals and carnivores. We review the scientific evidence for intervention effectiveness and aim to answer the question: "What works?" to reduce carnivore predation on domestic animals. Unable to retrieve a large enough sample to perform a meta-analysis of the effect of interventions, the review does not provide strong scientific evidence of intervention effectiveness, but allows some discussion about the available research of intervention effectiveness. This review should make us question the presumed effectiveness of widely recognised interventions. We need to move the research of large carnivore conflict interventions towards an evidence based practice, where management is planned to allow evaluation and research is challenged to improve study designs for evaluations of intervention effectiveness.

What are the non-food impacts of GM crop cultivation on farmers' health? Systematic Review

Monica Racovita¹, Dennis Ndolo Obonyo², Wendy Craig² and Decio Ripandelli²

¹ STS - Institute of Science, Technology and Society Studies, Alpen Adria University Klagenfurt, Austria, ² International Centre for Genetic Engineering and Biotechnology, Biosafety Unit, Trieste, Italy

To address the primary question, the study focused on two related secondary questions: (1) Does the cultivation of GM crops result in a lower number of pesticide-related poisonings?, and; (2) Does the cultivation of GM crops allow for higher financial resources to be used by farmers to improve their health status? Studies showed both an overall decrease in the amount of pesticides applied and an increase in household income from GM crop cultivation as compared to the cultivation of the non-GM counterpart, albeit the amounts of both pesticides and incomes varied considerably depending on context. Yet further deterministic connections with the number of pesticide-related poisonings and respectively general health status remain unproven. Studies wishing to explore these relationships would need to pay closer attention to contexts and risks of bias to demonstrate stronger correlations.

Thursday, August 25, 13.30-15.10, Small Auditorium

Canadian Centre for Evidence-Based Conservation

Session lineup

Inclusion of the social dimension in the design and evaluation of evidence-based environmental policies in Chile

Rodrigo Arriagada, Pontificia Universidad Católica de Chile

Environmental and Economic Evaluation of Public Policy in the Ministry of the Environment, Chile

Paulina Schulz, Ministerio del Medio Ambiente

To evaluate complex policy - lessons for environmental policy evaluations

Matilda Miljand, Umeå University

The reliability of evidence reviews in environmental science and conservation

Kristian Kvist, Ministry of Environment and Food of Denmark

A process oriented framework to evaluate quality in evidence relying on simulation models

Stefan Olin, Lund University

Inclusion of the social dimension in the design and evaluation of evidence-based environmental policies in Chile

Rodrigo Arriagada

Pontificia Universidad Católica de Chile, Chile

Chile has been reclassified by the World Bank from a middle-income to a high-income country, signaling that the country's political economic problems are increasingly those stressed in wealthier countries. Issues of environmental quality are increasingly in competition for policymakers' attention with the traditional issues of growth and poverty. As a result, the Chilean demand for more Environmentally-Relevant Policies (ERP) have increased. However, the lack of recognition of the socioeconomic contributions of natural environments has resulted in scant attention to the social dimensions of ERPs, with an associated paucity of appropriate evidence to be used when designing and evaluating ERPs. In response to these challenges, the newly created national program to evaluate the impact of public policies led by the Chilean Ministry of the Environment aims to introduce a more formal use of evidence when designing and evaluating ERPs. In completing this task, government-academia collaboration can help to fill important gaps.

Environmental and Economic Evaluation of Public Policy in the Ministry of the Environment, Chile

Paulina Schulz

Ministry of the Environment, Chile

The Department of Environmental Economics from the Chilean Ministry of the Environment has as one of its main functions the environmental and economic evaluation of all environmental policies countrywide. Ex-ante evaluations have been internally carried since 2010, with the objective of assessing the efficiency, effectiveness and equity of policies. The resulting reports are publicly available and the main fields covered so far are air and water pollution. In the near future, biodiversity conservation, waste management plans and ex-post evaluations will be covered as well. These assessments are informing decision making and hence the quality and reliability of the analysis is fundamental. Evidence collection is both a necessity and a challenge in a country where in many fields there are not local studies or research. Collaboration with academia and with countries that have surpassed similar challenges would help countries that are starting a more extended use of evidence.

To evaluate complex policy - lessons for environmental policy evaluations

Matilda Miljand

Department of Political Science, Umeå University, Umeå, Sweden

Both scientists and policy-makers have recognized the need to evaluate environmental policy and the importance of evaluation is often stressed in discussions about how to meet the challenges of different environmental problems. However, environmental problems are complex. They often affect large areas, have long exposure times, and they are characterized by great uncertainty and complex pattern of effects and causation. If we add to this the complexity of the human, social, and economic interactions, it is understandable that environmental policy is not easily evaluated. How can environmental policy be evaluated using the systematic review method? How has similar challenges been dealt with by other researcher and what lessons can be learned from systematic reviews carried out in other social science disciplines? The presentation will focus on some of the challenges in evaluating environmental policy and how these problems could be addressed.

The reliability of evidence reviews in environmental science and conservation

Kristian Kvist^{1,2}, Bethan C. O'Leary¹ and Andrew S. Pullin¹

¹ Centre for Evidence-Based Conservation, Bangor University, UK, ² Ministry of Environment and Food of Denmark, Nature Agency, Copenhagen, Denmark

Although conducting reviews is an efficient method of synthesising the fragmented primary evidence base, reviews that are of poor quality reliability have the potential to misinform. To assess the current value of evidence reviews for decision-making and future research we appraised a systematic sample of articles published in early 2015 using the Collaboration for Environmental Evidence Synthesis Assessment Tool. Overall, reviews performed poorly and low scores were ubiquitous across subject areas. Given the potential importance of reviews for informing management and policy, it is vital that overall reliability is improved. Although the increasing number of systematic reviews and meta-analyses highlight that some progress is being made, our findings suggest little or no improvement in the last decade. To motivate progress, we recommend an annual assessment of the reliability of evidence reviews. We identify a requirement for independent critical appraisal of reviews enabling decision-makers to select the most reliable reviews.

A process oriented framework to evaluate quality in evidence relying on simulation models

Stefan Olin¹, Jasmine Livingston², Kimberly Nicholas³, Anna-Maria Jönsson¹ and Ullrika Sahlin²

¹ Department of Physical Geography and Ecosystem Science, Lund University, Sweden, ² Centre of Environmental and Climate Research, Lund University, Sweden, ³ Centre for Sustainability Studies (LUCSUS), Lund University, Sweden

The complexity of many environmental decision problems require model-based approaches to synthesize empirical evidence, or simulate the consequences of interventions on large spatial and temporal scales. In order to address strength and weaknesses in evidence-based decision making, we suggest a conceptual framework to identify causes of weakness in evidence-based decision support relying on simulation models. The broad framework takes the perspective that the use of simulation models and expert knowledge is an integral part of the "evidence-based" concept and allows "evidence" in "evidence-based" to be more than empirical evidence, i.e. information acquired by observation or experimentation. The purpose of the framework is to provide an aid to identify strengths and weaknesses in a simulation analysis to support decision-making and to specify criteria to grade quality in this type of evidence. The framework divides a simulation analysis into different processes, for which it is possible to specify criteria to evaluate strength in evidence. We compare the suggested framework to the NUSAP framework for uncertainty management and the treatment of uncertainty in quantitative risk assessment. We demonstrate the framework on a simulation based assessment of soil carbon management impact on nitrous oxide emissions using the dynamic vegetation model LPJ-GUESS.

Friday, August 26, 13.20-15.00, Large Auditorium

Moderator
Ruth Stewart
CEE Johannesburg

Session lineup

Neonicotinoid insecticides: effects on non-target organisms, measures to mitigate impacts, and environmental and economic consequences of a ban

Abigail Graceson, Harper Adams University

Experiences collating evidence of conservation outcomes when rigorous evaluations are rare

Emma J. McIntosh, University of Oxford

Robust analysis as a way to consider conflicts in evidence

Ullrika Sahlin, Lund University

Can linear transportation infrastructure verges constitute a corridor and/or a habitat for biodiversity in temperate landscapes? A systematic review

Sylvie Vanpeene, IRSTEA

Systematic Reviews and Complexity: the Case of the Socio-Economic Impacts of Genetically Modified Plants

Monica Racovita, Alpen Adria University

Neonicotinoid insecticides: effects on non-target organisms, measures to mitigate impacts, and environmental and economic consequences of a ban

Abigail Graceson¹, Katy James¹, Nicola Randall¹, Keith Walters¹, Neal Haddaway² and Magnus Land²

¹ Harper Adams University, Newport, Shropshire, UK, ² Mistra EviEM, Stockholm Environment Institute, Stockholm, Sweden

Systematic mapping is a novel method for evidence synthesis in environmental management. It offers an attractive first step in evidence synthesis and allows information around a topic area to be collated and investigated. Systematic mapping has become increasingly popular over the last few years. Meanwhile the possible detrimental impact of neonicotinoid insecticides used in arable crop production on non-target organisms, has become highly debated and increasingly contentious. The future registration of some or all of this class of insecticides is uncertain in some countries, leading to further questions around future economic and environmental consequences of any bans. Here, we show how the complex issues surrounding the debate on the continued use and registration of neonicotinoid insecticides can be collated into a systematic map in order to inform decision-making in a comprehensive and unbiased way.

Experiences collating evidence of conservation outcomes when rigorous evaluations are rare

Emma J. McIntosh¹, Madeleine C. McKinnon^{2,3}, Robert L. Pressey⁴ and Richard Grenyer¹

¹ School of Geography and the Environment, University of Oxford, UK, ² Betty & Gordon Moore Center for Science, Conservation International, Arlington, USA, ³ School of Biological Sciences, University of Queensland, St Lucia, Australia, ⁴ Australian Research Council Centre of Excellence for Coral Reef Studies, James Cook University, Townsville, Australia

Evaluating the effectiveness of conservation interventions is often hampered by a shortage of high quality impact evaluation case studies from which to extract trends. This is the case with systematic conservation planning, an approach used to maximise biodiversity conservation objectives whilst assessing trade-offs against other outcomes such as economic efficiency and social cost. Although thousands of systematic conservation plans have been developed around the globe, our analysis reveals few plans have been evaluated post-implementation, and even fewer have reported quantifiable outcomes. Our systematic map (a form of structured database developed following *Environmental Evidence* guidelines) will form the most thorough international repository of evaluations of conservation plans available. In order to collate available evidence, novel methodologies were employed to maximise the likelihood of identifying relevant evaluations from the grey literature, as well as from peer-reviewed publications.

Robust analysis as a way to consider conflicts in evidence

Ullrika Sahlin

Centre of Environmental and Climate Research, Lund University, Sweden

Things are seldom ideal. Evidence to support decisions is not an exception. Conflicting information exemplifies a deviation from ideal, but there are not general principles to treat such in evidence synthesis. Conflicting information is in particular important in combination with statistical inference under small data samples and/or disagreement between experts. I outline the advantages and challenges with Bayesian principles under conflicts in evidence and in what way Robust Bayesian analysis may address these to generate robust recommendations. I conclude identifying three conflicts: the prior-data conflict, data-data conflict and prior-prior conflict. These conflicts are illustrated by examples from environmental decision-making.

Can linear transportation infrastructure verges constitute a corridor and/or a habitat for biodiversity in temperate landscapes? A systematic review

Sylvie Vanpeene¹, Arzhvaël Jeusset, Marianne Vargac, Yves Bertheau, Aurélie Coulon, Julien Touroult, Hervé Jactel, Isabelle Witte, Nadine Deniaud, Frédérique Flamerie de Lachapelle, Emmanuel Jaslier, Véronique Roy and Romain Sordello

¹ IRSTEA, Centre d'Aix-en-Provence, France

The potential of habitat or corridor of linear transportation infrastructures verges (road and railway embankments, strips of grass under power lines or above buried pipelines, or waterway banks) for biodiversity remains controversial. The present work is the first systematic review of this potential role in temperate landscapes. Our searches identified over 45,000 articles about all biodiversity. During the successive screening stages, articles about non-insect species were put aside in order to comply with the time frame of the project. After critical appraisal, 14 articles remained, which did not allow to conduct a meta-analysis. A knowledge gap was identified regarding the role of corridor. The effect of the surrounding landscape on insect diversity of verges seems to depend on the type of landscape and on the taxa considered.

Systematic Reviews and Complexity: the Case of the Socio-Economic Impacts of Genetically Modified Plants

Monica Racovita¹, Justus Wesseler², Maria Garrone³, Karen Hofreiter⁴, Christian Kohl⁵, Armin Spök¹, Ralf Wilhelm⁵ and Joachim Schiemann⁵

¹ STS - Institute of Science, Technology and Society Studies, Alpen Adria University, Austria, ² Wageningen University Social Sciences, Agricultural Economics and Rural Policy, Wageningen, the Netherlands, ³ University of Leuven, Centre for Institutions and Economic Performance, Leuven, Belgium, ⁴ Technical University of Munich, Munich, Germany, ⁵ Institute for Biosafety in Plant Biotechnology, Julius Kühn-Institut, Quedlinburg, Germany

The socio-economic impacts (SEI) of genetically modified plants (GMPs) are increasingly considered in GMP decision-making and policies. However, the complexity of SEI may pose problems concerning overstretching available foresight and assessment resources. Thus critically assessing, synthesizing and sharing scientific evidence available both within and outside the peer-review system are of key importance for various stakeholder groups. In addition, the controversies accompanying GMPs call for rigor, comprehensiveness, transparency and public participation in considering available evidence. The Systematic Review (SR) methodology seems to better meet these needs compared to existing practices, yet its use in complex settings can prove challenging. For SEI, both interventions and published data can have a high degree of heterogeneity that can discourage potential SRs. Following experiences gained within GRACE (<http://www.grace-fp7.eu/>) and elsewhere, this article argues that SR methodology can be valuable in complex settings such as the SEI and explores available options, but also discusses its limits.

Friday, August 26, 13.20-15.00, Small Auditorium

Session lineup

Communicating evidence via online knowledge management tools: coding our way to evidence-based decision making?

Samantha H. Cheng, National Center for Ecological Analysis & Synthesis

Reflections on producing an online systematic map of empirical social sciences studies about changing climate in South Africa

Carina van Rooyen, University of Johannesburg

Barriers and solutions to implementing evidence-based conservation

Jessica C. Walsh, Simon Fraser University

Why complex environmental systems are difficult to evaluate, and how the UK Government has tried to tackle this complexity

Ben Fagan-Watson, Policy Studies Institute

Developing Better Environmental Evidence in the U.S.: Determinants of Evaluation Supply at the USEPA

Nicholas R. Hart, George Washington University

Communicating evidence via online knowledge management tools: coding our way to evidence-based decision making?

Samantha H. Cheng¹, Julien Brun¹ and Madeleine McKinnon²

¹ National Center for Ecological Analysis & Synthesis, University of California, Santa Barbara, USA, ² Conservation International

Over the past number of years there has been an increasing call for more evidence-based decision making in conservation and development. Organizations and funders alike are emphasizing the needs for robust and substantial evidence upon which to make critical decisions that affect both the well-being and sustainability of natural ecosystems and the human populations who depend on them. However, despite the interest, numerous studies have shown that the use of evidence is not widespread, with many practitioners making decisions based primarily on experience. Drawing from the public health sector, systematic reviews and maps are increasingly being employed to collate and synthesize existing information regarding the efficacy and impacts of conservation and development projects on nature and people in an unbiased manner. These methods have tremendous potential to facilitate rapid access and uptake of necessary information for researchers, practitioners, and policymakers. However, communication of the resulting datasets and patterns, thus far is not widespread, potentially perpetuating the problem of "hidden evidence" in the form of PDFs and appendices within journal websites. We present our efforts to increase evidence uptake through the form of an online data portal and knowledge management tool of a systematic map on the impacts of conservation on human well-being as part of a Science for Nature and People Partnership (SNAPP) working group. (<http://cosima.nceas.ucsb.edu/ebc-dataportal>). We will discuss aspects of design, code, dissemination and preliminary impact of the tool on the sector.

Reflections on producing an online systematic map of empirical social sciences studies about changing climate in South Africa

Carina van Rooyen¹, Natalie Rebelo Da Silva¹ and Ruth Stewart^{1,2}

¹ Collaboration for Environmental Evidence's Johannesburg Centre, University of Johannesburg, South Africa, ² EPPI-Centre, University College London, UK

We are producing an online systematic map of empirical social sciences studies conducted on changing climate in South Africa. In this map (and related database) – that is searchable for various characteristics – we describe the various studies we found. In addition to being useful to a range of stakeholders, the aim of the map is to be used in informing a mixed methods research project on changing climate and water in a specific locale in South Africa. In this paper we reflect on the challenges of mapping mostly local scale contextual qualitative studies. Our reflections relate to conceptual diversities, methodological issues, epistemological contrasts, and divergent purposes of social sciences research on changing climate. We especially consider what it means for systematic review methodology to produce a systematic map that is not aimed to be followed up by further systematic reviewing, i.e., not aimed at identifying knowledge gaps, knowledge gluts, and /or knowledge clusters.

Barriers and solutions to implementing evidence-based conservation

Jessica C. Walsh^{1,2}, Lynn V. Dicks², Christopher M. Raymond³ and William J. Sutherland²

¹ Simon Fraser University, School of Resources and Environmental Management, Burnaby, Canada, ² University of Cambridge, School of Biological Sciences, Cambridge, UK, ³ Swedish University of Agricultural Sciences, Department of Landscape Architecture, Planning and Management, Uppsala, Sweden

While reasons for the science-implementation gap in conservation are well known, a thorough inventory of these barriers and possible solutions does not exist. We have developed a framework to categorise the barriers and solutions of applying science to practice using a review of the environmental and medical literature and semi-structured interviews with 35 conservation practitioners from 12 organisations in the United Kingdom and South Africa. The use of scientific evidence in management decisions was often facilitated by positive attitudes, collaborations with research institutes, and having scientists embedded within management organisations. Barriers associated with the management organisations' resources, structure and planning processes were found to be most common, despite being overlooked in past studies. We identified over 200 possible solutions to bridge the science-practice divide, which facilitate knowledge production, dissemination, exchange and use. Our inventory of barriers and solutions provides guidance for researchers and practitioners to successfully implement evidence-based conservation.

Why complex environmental systems are difficult to evaluate, and how the UK Government has tried to tackle this complexity

Ben Fagan-Watson

Policy Studies Institute, University of Westminster, UK

Complex environmental systems display various characteristics that complicate the evaluation of interventions. In response to these challenges, the UK Department for Environment, Food and Rural Affairs (Defra) commissioned the author to assess:

- Characteristics of complex environmental systems that make them challenging to evaluate
- Novel evaluation methods that could help them address this complexity.

This presentation will discuss the findings of the Rapid Evidence Assessment conducted for Defra, and reflect on the range and quality of peer reviewed literature on these subjects – as well as problems with using this type of methodology to inform choices about evaluation methods. It will also use evidence from a previous study he carried out, interviewing both junior and senior policymakers in Defra about their understanding of evaluation and 'what works'. The presentation will draw upon the author's involvement in the newly-formed ESRC-funded *Centre for Evaluating Complexity Across the Nexus*, which launched in March 2016.

Developing Better Environmental Evidence in the U.S.: Determinants of Evaluation Supply at the USEPA

Nicholas R. Hart

George Washington University, Washington, DC, USA

Since the inception of the U.S. Environmental Protection Agency (USEPA), considerable emphasis has been placed on the use of policy analysis tools that aim to prospectively inform environmental policy decisions, including cost-benefit analysis and risk assessment used for regulatory actions. However, compared to the amount of such ex ante analysis conducted at the USEPA before a decision is reached, relatively little evaluation of these same environmental policies is produced after implementation to inform future policy development or to modify existing policies. This original research applies accountability theory and organizational learning literature in order to identify and explain unique institutional factors that affect USEPA evaluation supply to inform future efforts. Through a series of mixed methods case studies, this research seeks to inform efforts aimed at improving the quality of environmental evidence within the USEPA—through evaluation and systematic reviews—in order to better inform decision-making and achieve desired environmental outcomes.

POSTER PRESENTATIONS

Friday, August 26, 12.20-13.20, Linné Room

Posters will be on display during the entire conference and poster presenters will be available for discussion during the poster session.

From systematic map to systematic review: the importance of social equity for human well-being in incentive based conservation

Glenn Althor¹, Madeleine McKinnon², Samantha H. Cheng³, Carissa Klein¹ and James Watson^{1,4}

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We have produced a systematic review, which examines how social equity affects human well-being outcomes, in incentive based conservation interventions. Our review Recent studies have used models to argue that the effect of social equity is likely an important factor for conservation intervention success. However, there is little empirical evidence available to measure this effect and as such, it is poorly understood. In our review, we define a theory of change, describing the extent and strength of evidence for how social equity affects human well-being in these interventions. Our theory of change is informed by the syntheses we have undertaken in order to measure social equity effects. Importantly, our review also demonstrates how an original review can utilize, and build upon, an existing evidence map. This method not only makes the review process much more efficient, it also produces less repetition between studies.

The Value of Systematic Maps in Environmental Sciences

Katy James¹, Nicola P. Randall¹ and Neal R. Haddaway²

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Systematic mapping is increasingly being used a methodology for evidence synthesis in environmental sciences to describe the state of knowledge surrounding a topic and to identify knowledge gaps and clusters. Systematic maps have a wide range of uses and are particularly valuable as a means of providing a holistic overview of available evidence for inter-disciplinary topics where the type of evidence is likely to be highly heterogeneous. Here we illustrate the value and uses of systematic maps for addressing complex broad topics that encompass environmental, social and economic factors.

Gaining from the nothing: The value of an empty review

Natalie Rebelo Da Silva¹, Ruth Stewart^{1,2} and Carina van Rooyen¹

¹ Collaboration for Environmental Evidence's Johannesburg Centre, University of Johannesburg, South Africa,

² EPPI Centre, University College London, UK

The idea of insufficient evidence to determine an effect size is often touted as a negative to be avoided at all costs by research teams conducting a systematic review. This poster argues however that empty reviews are not something to be dreaded but rather that there are a number of positives to be gained from an empty review. The five positive elements discussed here have emanated from the experience of a research team conducting a CEE systematic review of the impact of urban agriculture on food security in low and middle income countries. We argue in this poster that empty reviews can be useful for highlighting original research needs, providing opportunities for active engagement, supporting a multiple-methods approach to systematic reviews, reminding researchers of gains made from time and human resource investments, and using what was literature found to test and develop more realistic theories of change.

Challenges and barriers in promoting systematic reviews in environmental management in France: Lessons learnt from 2 case-studies

Barbara Livoreil¹, Yannick Autret², Jean-François Lesigne³ and Plinio Sist⁴

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Paris hosts a Cochrane Centre as well as the new French Centre of the Collaboration for Environmental Evidence. Yet, systematic reviews remain largely unknown in France whilst being increasingly developed in other countries. There are high expectations from many commissioners, including the French Ministry of Ecology, Environment and Seas (MEEM) about the added values brought by this methodology. Two CEE systematic reviews have been conducted in France for 2 years. One is about silvicultural practices in tropical forests (CIRAD, funded by CIFOR) and the other is about corridors along linear infrastructures (roads, railways, energy, watercourses) (MNHN, funded by a private-public consortium CILB-MEEM). We develop a list of lessons learnt from the commissioners' and coordinator's perspective, and suggest how the Collaboration may strategically provide help and benefit from such feedbacks to improve feasibility, quality and reputation of systematic reviews, in order to improve future call for tenders and implementation.

Towards a Norwegian center for evidence based environmental reviews

Sindre Langaas¹ and Harald Aas²

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As most other European countries, Norway is missing a center or a core expertise working dedicated with evidence based reviews for environmental management. This has been noted as a by shortcoming in research policy documents and the Ministry of Climate and Environment has since 2014 supported the Oslo Centre for Interdisciplinary Environmental and Social Research (CIENS) with some financial resources to examine and to build capacity in evidence based environmental reviews. CIENS is an umbrella center gathering seven environmental research institutes and the University of Oslo. The poster will present some of the activities carried out so far, reflect on experiences gained and present some possible options for future development.

Which bats are killed on roads?

Amy Fensome

University of Exeter, Exeter, UK

Roads are a potential threat to bat conservation. We performed a systematic review of the literature and conducted meta-analyses to determine which individuals are more prone to collisions with vehicles. Based on collated records of 1207 bat road casualties in Europe, we found that low-flying species are more prone to collisions than high-flying species, and that juveniles are more vulnerable to collisions than adults whilst males are more likely to be found on roads than females.

A global meta-analysis reveals livestock grazing drives trade-offs between ecosystem services in salt-marshes

Kate E. Davidson¹, Fowler, M.S., Skov, M.W., Doerr, S. and Griffin, J.N.

¹ Swansea University, Swansea, UK

Salt-marshes deliver valuable ecosystem services including coastal protection, carbon sequestration, recreation, habitat provision, and pasturage. We hypothesised that livestock grazing differentially affects saltmarsh ecosystem services. We conducted a global meta-analysis of livestock grazing impacts in salt-marshes (88 studies, 500 entries), using commonly measured ecosystem properties as service indicators. Plant height and cover reduced with grazing, potentially reducing wave attenuation by diminishing friction. Carbon stored as aboveground biomass, and potential C input from litter biomass were reduced, but total soil carbon was unaffected by grazing. Multiple soil properties were affected by grazing, with implications for biogeochemical cycles underpinning multiple services. Biodiversity responses to grazing were generally positive for vegetation and birds, but generally negative for invertebrates, although responses were moderated by multiple variables. Collectively, these results show that grazing affects multiple sets of properties that drive ecosystem services, and can be used to inform management of saltmarsh grazing.

Prioritising management of invasive species using functional responses

Nigel G. Taylor^{1,2} and Alison M. Dunn^{1,2}

¹ School of Biology, University of Leeds, Leeds, UK, ² water@leeds, School of Geography, University of Leeds, Leeds, UK

Invasions by alien species are associated with huge environmental and economic costs. Limited resources for managing invasive species must be invested to yield the greatest return. Information on the likely impact of invaders could feed into management decisions: all else being equal, invasive species with the greatest negative impact are highest priorities for biosecurity, control or eradication efforts. I outline how the functional response (FR) could provide a simple and rapid tool for predicting invader impacts. An FR describes the relationship between resource availability (e.g. prey density) and consumption (e.g. by a predator). I highlight examples suggesting FR curves of ecologically damaging invasive species are higher than, and may be a different shape to, those of innocuous natives or less damaging aliens. Pending further research to confirm the generality of this pattern, FRs constructed from field or laboratory data could be used to compare likely impacts of emerging invasive species.

Improvements in studying the effects of light pollution on bat abundance and species richness within nature reserves

Katie Watson

Nottingham Trent University, UK

In Europe, disturbance and modification of habitats and roosts due to development and urbanisation is arguably the biggest threat to bat populations. Lighting schemes can disrupt habitat connectivity through land loss and spatial exclusion of bats due to high illuminance, or indirectly by severing commuting routes from roosts. Nature reserves provide a valuable resource of foraging and roosting opportunities whilst connecting the landscape. The effects of lighting schemes on these sensitive areas has shown a causal link between low illuminance and overall increased bat abundance. Improvements to the methodology aim to further examine how illuminance affects bat behaviour, map this relationship, and draw together other known influential variables using an artificial neural network. The research is showing that development of the methodology is generating enriched data and is identifying the challenges involved in finely mapping light pollution.

Synthesising river restoration efforts: identifying the environmental, methodological and biological factors that influence restoration success

Joseph Huddart

Imperial College London, Ascot, UK

The exploitation and degradation of freshwaters globally to meet human demand has led to widespread declines in biodiversity, these issues are set to intensify rather than diminish. The ecological restoration of rivers, which seeks to restore running waters towards a more natural state, has become a widely accepted societal objective in most developed nations. However, despite exponential implementation, our understanding of how measures operate to restore biodiversity remains limited and results inconsistent due to project monitoring remaining the exception to the rule and the use of ad-hoc metrics applied on a case-by-case basis to determine ecological outcome. More recent efforts to integrate the multitude of project data available using synthesis techniques such as meta-analyses has identified environmental, methodological and biological factors that may influence outcomes. A better understanding of these would enable us to better predict when, where and what type of restoration is most likely to be ecologically successful.

What is the extent and occurrence of empirical evidence delineating the ecosystem processes and functions by which defaunation of hunted vertebrates can affect carbon storage and sequestration in terrestrial ecosystems? A systematic map

Laura Thomas-Walters

University College London, UK

There is a growing awareness of the wide-ranging effects that hunting may have on ecosystem services such as carbon storage and sequestration. There have been many publications in recent years which examine the removal of hunted vertebrates on intermediary ecosystem processes such as seed dispersal, though few studies have extended this research to actual changes capacity for carbon storage and sequestration. Much of this research is poorly organised and often uses different terminology. We conducted a systematic map to catalogue and describe the available evidence delineating the ecosystem processes and functions by which defaunation of hunted vertebrates can affect carbon storage and sequestration in terrestrial ecosystems, highlighting gaps in our knowledge as priorities for future research. In particular, we have identified geographic biases in research efforts, and the need for empirical evidence regarding the effects that hunting may have on certain ecosystems and intermediary processes by which hunting could contribute to climate change.

PARALLEL ROUND TABLE DISCUSSIONS

Friday, August 26, 15.20-16.50, Rooms tbd

Biodiversity informatics enabling research data re-use for analysis validation

Anders Telenius

Swedish Museum of Natural History, Stockholm, Sweden

Environmental evidence can be inferred from reviewing basic and applied research by advancing evidence synthesis methodology, but to move one step further improved availability and re-use of underlying original data may be necessary. This discussion session is intended to present opportunities, and to summarize the needs and the expectations of analysts involved in environmental evidence matters in regard to present data availability and presentation, to point at the immediate and long-term possibilities available to meet with such demands, the result expected to be forwarded to parties responsible for existing and planned services (GBIF, GEO BON etc.).

Children's Investment Fund Foundation discussion on Climate Change

Megan Grace Kennedy-Chouane

The Children's Investment Fund Foundation, London, UK

Evaluation professionals working in the area of Climate Change mitigation are hereby convened to attend an informal networking event. The convening intends to provide a forum for professionals to meet others working in Evaluation and Climate Change (e.g. land use, forestry, energy system transformation, transportation, urban planning, energy efficiency, behaviour change for low carbon lifestyle) in order to discuss key opportunities for improving practice in this field. Hosted by: The Children's Investment Fund Foundation

Rapid reviews for rapid decisions: is it that simple?*

Rob Richards

Evidentiary Pty Ltd, Melbourne, Australia

The demand for more rapid evidence synthesis approaches has been largely driven by a need to meet the time and resource constraints of decision making needs such as policy development and on-ground investments. While these decisions may have rapid timeframes, the desired reliability of evidence to inform these decisions often remains high. In order to effectively align the decision needs and the amount of investment in evidence synthesis a number of factors need to be considered including the decision context, the desired level of confidence, the resources available and how the evidence will be used in the decision making process. Recent examples will be drawn on during this session to stimulate further discussion on how a simple decision support tool may be developed to assist decision makers in determining what level and type of investment in evidence synthesis is most appropriate for their needs.

*This is continuation of the presentation in the Themed session 3, in the form of a discussion.

PRESENTATION GUIDELINES

ORAL PRESENTATIONS

Oral presentations are grouped into 4 thematic and 4 open sessions, with day and time information available in the [programme](#) on page 4. You are responsible for knowing the date, time and location of your talk, and arriving in time for the start of your assigned session.

Presentation files must be sent to info@eviem.se prior to the conference or submitted on-site in good time prior to your talk.

To ensure your presentation runs as expected, we ask that the following steps be taken while preparing to save your file:

- Make sure any video/audio files are properly linked and embedded into the presentation.
- Save your oral presentation file in Microsoft Powerpoint or Adobe PDF format to a USB stick if you plan to upload on-site. We strongly recommend you also save your presentation on a back-up medium and bring that to the conference as well.

If you submit your presentation on-site, please contact Nichlas Staberg from EviEM or the conference desk located on floor 3 outside the auditoriums in the restaurant ([map](#)). Please know the day and time of your presentation to help expedite the submission process.

Note that speakers are not required to use visual aids/powerpoints for their talks. If you choose not to, please send an e-mail to info@eviem.se as soon as possible indicating this.

Oral presentations are limited to 20 minutes: approximately 15 minutes for presenting and 5 minutes for questions. Time will be strictly enforced by session moderators.

POSTERS

Participants with a poster are requested to put up their posters in the Linné Room on floor 4 upon arrival and leave them up during the entire conference. Pins will be available by the conference desk.

A poster session will take place in the Linné Room on Friday, August 26, during lunch between 12.20-13.20. Poster presenters are expected to stand by their posters and be available for discussion.

Posters should be printed in portrait format of a maximum of A0 format (841 x 1189 mm), the poster screens are approximately 900 X 2000 mm.

For any questions regarding posters and oral presentations, please send an e-mail to karolin.andersson@eviem.se.

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NOTES

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CONNECT WITH US

The CEE is a global collaboration that has a network of national/regional Centres. The centres contribute to the work of the CEE by encouraging evidence-based practice and systematic review activity within their geographic region. At present there are six CEE Centres, based in the UK, Canada, France, South Africa, Sweden and Australia.

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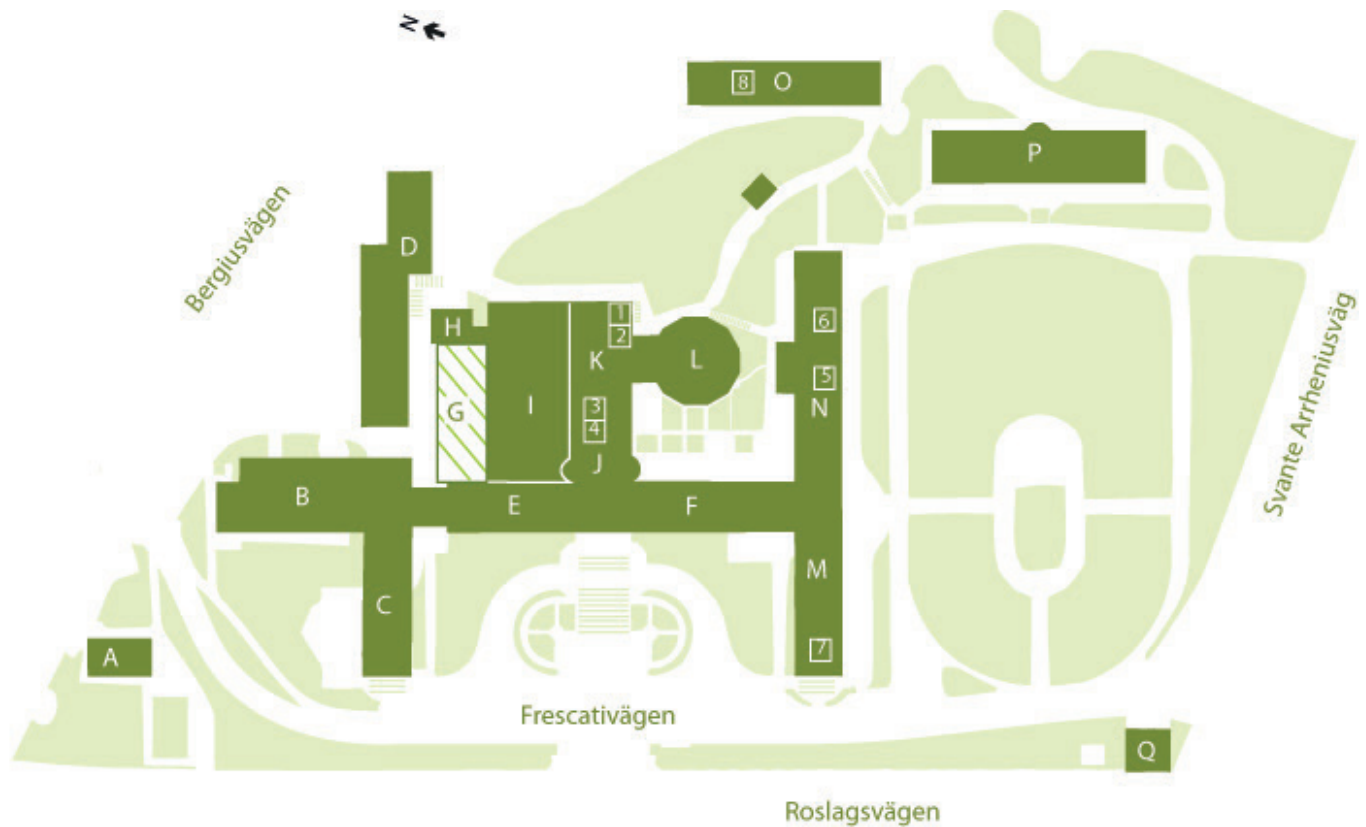
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MAP OF THE MUSEUM



CONFERENCE ROOMS

1	Room 525	Floor 5 inside temporary exhibition "Mysteries of the unseen world"
2	Room 526	Floor 5 inside temporary exhibition "Mysteries of the unseen world"
3	Large Auditorium	Floor 3 by the Restaurant
4	Small Auditorium	Floor 3 by the Restaurant
5	Board Room	Floor 5 inside "The Human Animal"/temporary exhibition "Moments from the Swedish Wilderness" (Special Access requirement)
6	Wickman Room	Floor 5 inside "Treasures from the Earth's Interior" (Special Access requirement)
E floor 4	Linné Room	Posters and lunch space

EXHIBITIONS

E floor 5	Exhibition "Life in Water"
F floor 4	Exhibition "Mission: Climate Earth"
F floor 5	Exhibition "The Human Animal"
I floor 4	Exhibition "Fossils and Evolution"/"The Human Journey"
I floor 5	Exhibition "Swedish Nature"

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INTERNET ACCESS

During the conference, Wifi can be accessed on the following networks.

Eduroam

If you have a personal login.

NRM-Guest

User name: cee
Password: naturhistoriska

Individual login credentials will also be available at the conference desk outside the auditoriums in the restaurant.

REGISTRATIONS

Upon arrival to the conference venue, registrations can be made at the conference desk on floor 3, outside the auditoriums in the restaurant area, see [map](#). Here you will also be able to pick up your name tag, conference bag and individual Wifi credentials. The conference desk will be open and staffed at all times during the conference. Registrations can be made from 16.00 on Wednesday, August 24.

For those who are not yet registered but wish to make a late registration for one or all days of the conference, please proceed to the conference desk to do so.

CONFERENCE EVENTS

Stockholm City invites all participants to the City Hall

On Thursday evening at 19.00 you are invited to a buffet and a guided tour of Stockholm City Hall. The City Hall has been used since 1923, and now it is probably best known for the Nobel Prize ceremonies. It is located less than 10 min walk from the Central Train Station. There will be maps at the conference desk, and we will also travel in convoy on Thursday evening from the conference venue. You will receive your ticket at registration, please remember to bring it on Thursday evening.

Dinner at the Nobel Museum

For those of you who have registered for the conference dinner on Friday night, we will meet at the Nobel Museum in Gamla Stan (Old town) at 18.30-18.45. From the Metro station Gamla Stan it takes approximately 10 minutes to walk, and there will be maps available at the conference desk.



Stockholm 2016