



Collaboration for
Environmental
Evidence

2017 ANNUAL REPORT

www.environmentalevidence.org



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A Message from the Chair



There were many global events in 2017 that reminded me of the need for reliable sources of evidence to inform decision making. We now live in a world of information overload where disinformation and 'fake news' are everyday realities that need filtering out of our decision making. This is as true for environmental issues as any other and for those seeking reliable evidence the challenges are significant and potentially overwhelming. CEE is responding to the demand for reliable evidence and is putting in place key tools and methodologies to help those who want to provide and those who wish to use reliable evidence for environmental management. A key advance in 2017 was the production of version 5 of the CEE guidelines and standards on the conduct of environmental evidence syntheses. This open access guide is available for all who wish to produce rigorous and reliable syntheses.

The CEE journal, *Environmental Evidence*, continues to publish systematic reviews and maps of evidence, along with their protocols, conducted to ever higher standards. The journal's metrics suggest that it is already becoming an influential source of evidence for researchers and decision-makers alike. A highlight of this year's content was the appearance of our first Special Issue on stakeholder engagement in the conduct of environmental evidence syntheses edited by Neal Haddaway and Sally Crowe. This has already resulted in some great methodology and commentary articles and will be completed in 2018.

Alongside the work on production of evidence, CEE has recently embarked on a project to provide an 'evidence service' to users that enables access to a wider range of evidence reviews and syntheses in a searchable format together with critical appraisal of their reliability. We hope to demonstrate the CEE Database of Evidence Reviews (CEEDER) on our website in 2018.

Communication of our work has always been a challenge with the resources we have and therefore we took an important step forward in 2017 in appointing a Communications Officer, Jessica Taylor, based at our Canadian Centre in Ottawa. Jess is already doing a great job raising awareness of CEE and its products. CEE continues to run an active training programme and this year we contributed to the Global Evidence Synthesis Initiative by running events in their series of webinars designed to build capacity of evidence synthesis in lower to middle-income countries. Meanwhile the CEE Meetings

Committee has this year been focussed on organisation of CEE's second international conference to be held in Paris in April 2018. We are all looking forward to another great meeting following on from Stockholm.

As CEE approaches its 10th Birthday it enters a phase that presents significant challenges for governance. At the end of 2017 the founding trustees stepped down from the Board and many of the basic governance passed on to others for the first time. This is recognised as a difficult phase for many small NGOs but I am confident that we have a sound foundation in both voluntary personnel and finance upon which the collaboration can build in the future. Arguably our greatest asset is our network of Centres on which the Board of Trustees can rely for support through this challenging phase.

Finally, as I step down as Chair of Trustees, I would like to thank the other founders, Teri Knight and Rob Marrs for their fantastic support and vision from the very beginning of the idea of CEE. Thanks also to the other Trustees, past and present who have come on board and helped develop the organisation to the position we are in today. Thanks to the CEE Centres and their leaders for contributing so much to the work of CEE and supporting many of our key projects. And finally, thanks to all those who have contributed their work that has enabled CEE to become a world leader in environmental evidence synthesis. I suspect the next 10 years will be even more exciting and rewarding for CEE.

Andrew Pullin

The Board of Trustees



Andrew Pullin
Chair

Professor of Evidence-Based
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The Collaboration

CEE Mission

To effectively promote an evidence-based approach to environmental management by facilitating the conduct and dissemination of high quality syntheses of evidence that will inform decision making and better conserve biodiversity and ecosystem services for global benefit.

CEE Vision

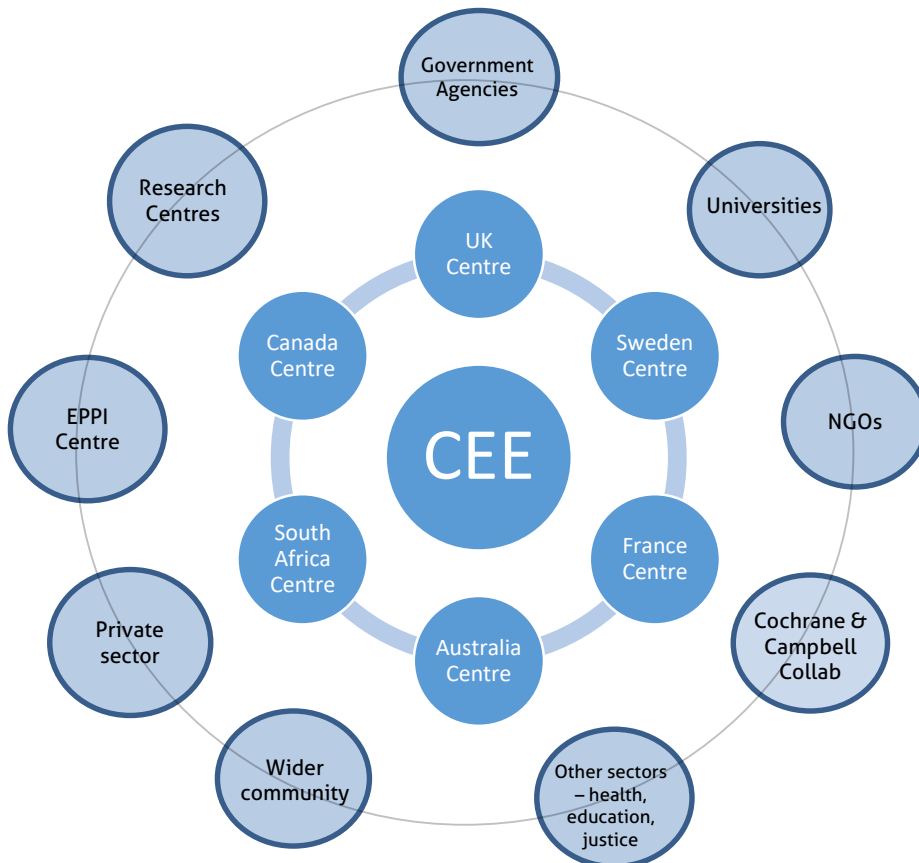
- Effective environmental management resulting from policy and management decisions that are informed by the best available evidence on questions of concern.
- A culture of scientific evaluation of environmental management through objective assessment and synthesis of available evidence.
- A society that appreciates and is supportive of the role of science in informing decisions that affect the environment and human wellbeing.



Communications Strategy

The CEE Communications and Engagement Strategy aims to:

- ensure effective communication among the CEE Centres;
- provide a strategy to share knowledge and coordinate activity among the CEE Centres;
- provide clarity and consistency in the development and delivery of key messages;
- provide a framework to build awareness of the CEE and celebrate achievements;
- define roles and scope with respect to communications; and
- define review and evaluation processes.



In 2017, CEE hired its first ever Communication Officer, Jessica Taylor, to conduct the communications work set out in the CEE Strategic Plan and oversee activities across various communications channels and functions. Jessica is a research biologist at the Canadian Centre and is responsible for maintaining the CEE's website, Twitter account (@envidence), newly launched Facebook page, the production of the Annual Report, and overall, acting as a 'brand guardian' ensuring consistency across all internal and external communications.

CEE Around the World

CEE Joburg coordinator, Natalie Tannous, co-facilitating a session at the Global Evidence Summit in Cape Town, with ACE colleague Yvonne Erasmus.



Members of the the Canadian CEE Centre at the Canadian Science Policy Conference in November 2017 that brought together scientists and policy-makers from around the country. (Left to right: Teah Lizée, Jessica Taylor, Steven Cooke, Trina Rytwinski)

Members of the Swedish and South African Centres together at the Global Evidence Summit Initiative in 2017. (Left to right: Neal Haddaway, Ruth Stewart, Sif Johansson, Biljana Macura, Karolin Andersson, Magnus Land)



Neal Haddaway and Jacquie Eales of the Training Team and trainees at the *Centro para el Impacto Socioeconómico de Políticas Ambientales* after a training session that was the first step in the formation of the future CEE Centre in Chile.

CEE Centres in 2017



Australia



The Collaboration for Evidence Informed Practice and Policy (CEIPP) was established in December 2014 and as a collaboration between the University of Queensland, Monash University, the University of Melbourne, the University of Canberra and Evidentiary. Members of the Centre are involved in the development and implementation of a range of evidence synthesis methods to improve environmental decision making within policy and on-ground management. The Centre members collaborate with a diverse group of government employees, practitioners and academics in undertaking activities such as training in evidence-based decision making, raising awareness of CEE and systematic review methods, developing evidence-based evaluation frameworks and publications.

Publications

Cook, C.N., Nichols, S.J., Webb, J.A., Fuller, R.A., Richards, R.M., 2017. [Simplifying the selection of evidence synthesis methods to inform environmental decisions: A guide for decision makers and scientists.](#) *Biological Conservation* 213, 135–145.

Canada

Canadian Centre for Evidence-Based Conservation and Environmental Management

The Canadian Centre had another significant year of achievements in 2017. They published 3 new protocols (2 reviews and 1 map), contributed to the special series on stakeholder engagement in systematic reviews and maps in the journal "Environmental Evidence", and continued to build capacity for and interest in SRs within our community and Canadian government agencies, securing 2 new contracts in the fall.

In 2017, members of the Canadian Centre delivered a number of presentations on review specific topics and general presentations on the importance of evidence-based conservation and environmental management (e.g., Parks Canada headquarters, American Fisheries Society Annual Meeting in Tampa Bay). Furthermore, they held an introductory workshop for staff of one of their allied government agencies (Fisheries and Oceans Canada). This 2-day workshop was attended by 22 government staff and contractors and was used to build further appreciation and understanding of the role of systematic reviews in evidence-based conservation and environmental management within the Canadian context.

Priorities for the Canadian Centre for 2018 include: (1) completing the systematic reviews/map for the 3 projects currently on-going; (2) submitting protocols for the 2 new contracts acquired at the end of 2017: (i) Are captive breeding programs for at risk freshwater fish and mussel species effective at achieving conservation targets in the wild?, and (ii) To what extent do fish passage facilities serve as tools to mitigate the presence of barriers and maintain ecological connectivity for fish populations?; (3) formalizing their status as a "Centre" within Carleton University, and (4) exploring additional broader funding and partnership opportunities to ensure long term stability and enable us to engage more fully in realizing evidence-based conservation in Canada and beyond.

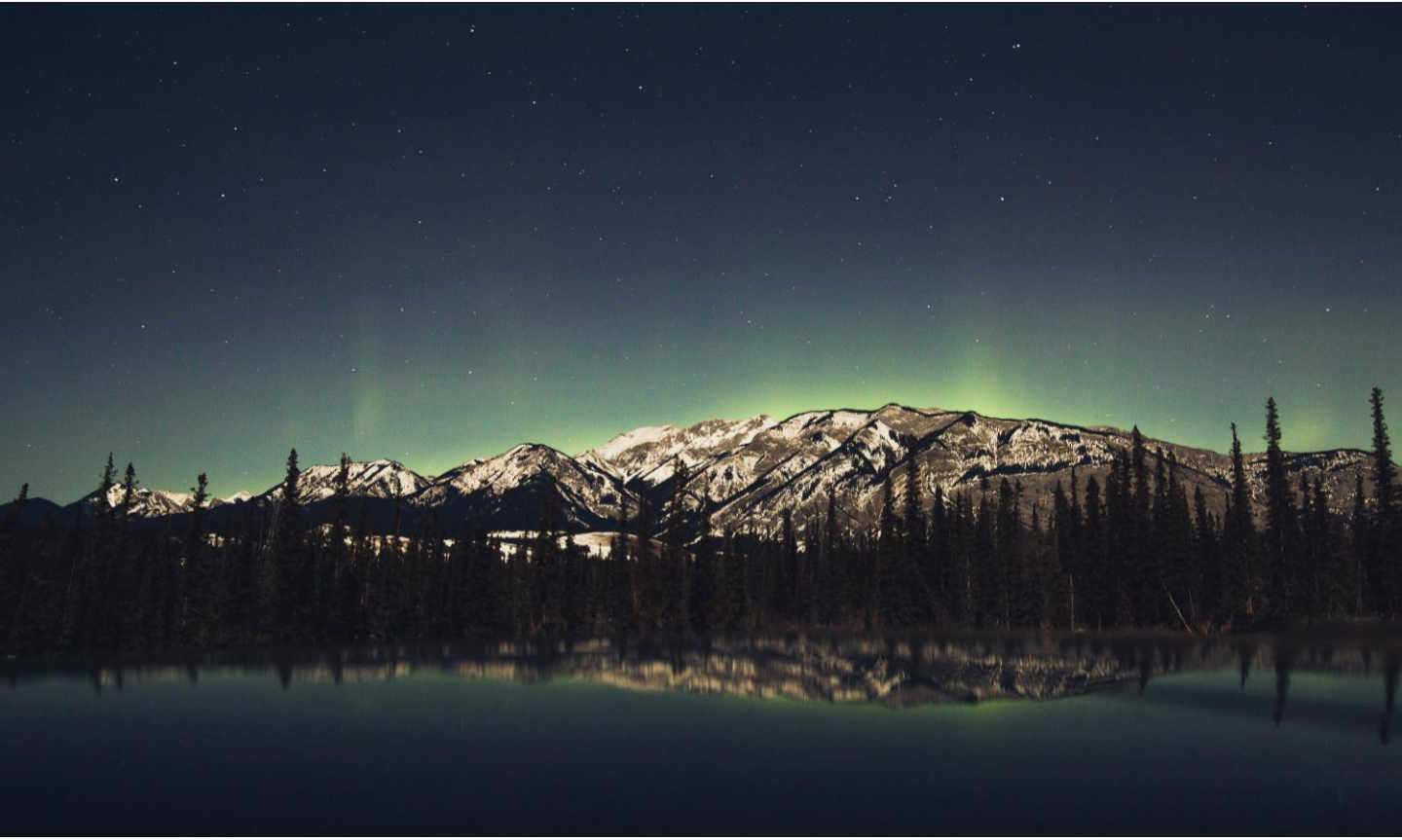


Members of the the Canadian CEE Centre: (left to right) Trina Rytwinski, Kent Prior (Parks Canada), Steven Cooke, Lisa Donaldson, Jessica Taylor



CENTRE FOR EVIDENCE-BASED
CONSERVATION AND
ENVIRONMENTAL MANAGEMENT

Canada



Publications

- Taylor JJ, Rytwinski T, Bennett JR, Smokorowski, KE, Cooke SJ. 2017. [The effectiveness of spawning habitat creation or enhancement for substrate spawning temperate fish: a systematic review protocol](#). *Environmental Evidence* 6:5
- Rytwinski T, Algera DA, Taylor JJ, Smokorowski, KE, Bennett JR, Harrison PM, Cooke SJ. 2017. [What are the consequences of fish entrainment and impingement associated with hydroelectric dams on fish productivity? A systematic review protocol](#). *Environmental Evidence* 6:8
- Rytwinski T, Taylor JJ, Bennett JR, Smokorowski, KE, Cooke SJ, 2017. [What are the impacts of flow regime changes on fish productivity? A systematic map protocol](#). *Environmental Evidence* 6:13
- Taylor JJ, Rytwinski T, Bennett JR, Cooke SJ. 2017. [Lessons for introducing stakeholders to Environmental Evidence Synthesis](#). *Environmental Evidence* 6:26
- Cooke SJ, Birnie-Gauvin K, Lennox RJ, Taylor JJ, Rytwinski T, Rummer JL, Franklin CE, Bennett JR, Haddaway NR. 2017. [How experimental biology and ecology can support evidence-based decision-making in conservation: Avoiding pitfalls and enabling application](#). *Conservation Physiology* 5:1.
- Cooke, SJ, Wesch, S, Donaldson, LA, Wilson, ADM, Haddaway, NR. 2017. [A call for evidence-based conservation and management of fisheries and aquatic resources](#) *Fisheries*, 42:3, 143-149.

France

Fondation pour la Recherche sur la Biodiversité



This year the French Centre has been especially dedicated to the preparation of CEE2018, the 2nd edition of our CEE international conference, to be held in Paris in April 2018. Centre members also contributed to the new the CEE Guidelines and various developmental activities of CEE (such as CEEDER and CEESAT). Their staff benefited from a public-funded job position which allowed Ludivine Boursier to join the team and develop contacts with librarians and offered technical support to review teams in this respect. In parallel, the number of systematic reviews for which CEE France provides training and technical support jumped from one to five, as a consequence of past successful training events raising a lot of interest, and an excellent support from funders, especially the Ministry in charge of ecology. A request for a systematic review has also been taken on board by the H2020 Eklipse programme, which contributes to the promotion of this methodology at the European level. Our booklet presenting systematic reviews in French has been entirely reshaped and is available online on the website for the Fondation pour la Recherche sur la Biodiversité (FRB).

France

Awareness Activities

Training: 4 free training courses "Introduction to systematic reviews", 2 training courses delivered in private institutions

Lectures: systematic reviews taught to MSc students at University Paris XIII

Priorities for 2018

The Centre priorities for 2018 are mostly to have a successful CEE2018 event and to continue accompanying ongoing systematic reviews, raising awareness about this approach and trying to increase the number of reviews conducted under CEE guidance. The community of interest is slowly growing and they hope to develop more activities by mobilizing voluntary support after CEE2018. Funding more systematic reviews is a high priority, keeping in mind that they need to deliver robust outputs that are also relevant to decision makers and easy to communicate, and that the French landscape is still very populated by expert opinion and consultation and other forms of knowledge synthesis such as Collective Expertise. They expect to be challenged about the usefulness and added value of the methods and outputs of currently conducted SRs, and this will need to be tackled in a timely manner.



[La revue systématique](#)



Members of the French CEE Centre: (left to right) Barbara Livoreil, Ludivine Boursier

South Africa

CEE Joburg

Since late 2016 the CEE Centre in South Africa – called CEE Joburg – has been hosted by the Africa Centre for Evidence (ACE) at the University of Johannesburg. The mandate of CEE Joburg is to contribute to the work of the global CEE by encouraging the need for systematic reviews to inform environmental policy and practice in Africa. Since establishment in 2012, they have collaborated widely to promote research synthesis for environmental decision-making.

In 2017 CEE Joburg was co-directed by Prof Ruth Stewart and Dr Carina van Rooyen, with support from coordinator Natalie Tannous. Their main occupation in 2017 was reviewing the evidence on how ecosystem services can be used to support multi-dimensional poverty reduction in sub-Saharan Africa. This Natural Environment Research Council funded project firstly involved producing an interactive evidence interface that mapped various types of interventions for ecosystem services against components of the Sustainable Development Goals. Flowing from this map they conducted four rapid evidence syntheses on priority policy questions for sub-Saharan African decision-makers, including the South African government Department of Environmental Affairs (DEA). These questions were:

- Does governance type in protected areas matter for poverty?
- What are the impacts of marine resource management on multi-dimensional poverty alleviation in sub-Saharan Africa?
- Which methods are used in ecosystem services and poverty alleviation research?
- Which decision tools are available for ecosystem services and poverty alleviation in sub-Saharan Africa?

Working with DEA continued through their staffing and financial contributions to DEA's hosting of the annual Biodiversity and Evidence Indaba in August in Johannesburg, where they launched the systematic map on ecosystem services and poverty reduction in sub-Saharan Africa.

CEE Joburg are collaborating with Zie on an on-going systematic review on the evidence of the effects of payment for environmental services (PES) in low- and middle-income countries. The review uses statistical meta-analysis to assess the effectiveness of PES, combined with a qualitative evidence synthesis to unpack the different factors influencing the effects of PES.

Centre members also attended the Global Evidence Summit (GES) in Cape Town in September 2017, where they co-hosted a session on evidence synthesis and climate change that built on Ruth Stewart's opening keynote to the conference on "Do evidence networks make a difference?" Based on their collaboration with the Africa Evidence Network (AEN) on systematic review capacity in Africa.

Centre members were also involved in training on systematic review methodology, provided to the Natural Resources and the Environment Unit of the South African Council for Scientific and Industrial Research.



Some of the ACE and CEE Joburg team members who worked on the ESPA-project: (front row) Zafeer Ravat, Charity Chisoro, Yvonne Erasmus, (back row) Laurenz Langer, Mary Opondo, Natalie Tannous.

South Africa



Plans for 2018

Towards the end of 2017 CEE Joburg was able to secure a three-year full-time secondment to ACE for the co-director of the Centre, starting in January 2018. They will also host two interns from McMaster University in Canada later in the year, and with funding secured for a student assistant, this will bolster our staff complement for 2018.

In 2018 CEE Joburg will focus on two main areas of work. (1) They secured funding for the operational cost (excluding staffing cost) for work with DEA on developing and delivering a responsive evidence synthesis service (RESS) on environmental matters. (2) They will explore options for more secure long-term funding for CEE Joburg. This will likely include exploring collaboration with NGOs, such as BirdlifeSA and the South Africa National Biodiversity Institute. They also want to give attention to developing – in partnership with the AEN (which constitutes well over 1000 members in 41 African countries) – an online open-access database of people working on environmental evidence in Africa.

Centre members look forward to attending the biennial CEE conference in Paris in April 2018, where CEE Joburg will present four papers, and facilitate a panel on rapid evidence synthesis. Similarly, they plan to organise a panel for the AEN's biennial conference in September 2018 in Pretoria, called EVIDENCE 2018.

South Africa

2017 Publications

(research reports available at www.africacentreforevidence.org)

- Cooke SJ, Johansson S, Andersson K, Livoreil B, Post G, Richards R, Stewart R, Pullin AS. 2017. [Better evidence, better decisions, better environment: Emergent themes from the first environmental evidence conference](#). *Environmental Evidence* 6:15
- Erasmus Y, Langer L. 2017. [Does governance type in protected areas matter for poverty? A Rapid Assessment of the Evidence from Sub-Saharan Africa](#). Johannesburg: Africa Centre for Evidence.
- Erasmus Y, Tannous N, Langer, L. 2017. [A systematic map of evidence on the links between ecosystem services and poverty alleviation in Africa: A user guide](#). Johannesburg: Africa Centre for Evidence.
- Haddaway NR, Kohl C, Rebelo da Silva N, Schiemann J, Spök A, Stewart R, Sweet JB, Wilhelm R. 2017. [A framework for stakeholder engagement during systematic reviews and maps in environmental management](#). *Environmental Evidence* 6:11
- Langer L, Erasmus Y, Tannous N, Stewart R (2017) [How stakeholder engagement has led us to reconsider definitions of rigour in systematic reviews](#). *Environmental Evidence* 6:20
- Stewart R, Chisoro C, Opondo M, Tannous N, van Rooyen C. 2017. [Decision-tools for ecosystem services and poverty alleviation: A rapid evidence assessment](#). Johannesburg: Africa Centre for Evidence.
- Stewart R, Nduku P, Langer L. 2017. [Capacity in Africa: The results of a survey on support for and production of evidence maps and evidence syntheses, including systematic reviews](#). Africa Centre for Evidence as secretariat to the Africa Evidence Network, University of Johannesburg: Johannesburg.
- Van Rooyen C, Opondo M, Chisoro C, Tannous N, Stewart R. 2017. [Methods used in ecosystem services and poverty alleviation research: A rapid evidence assessment](#). Johannesburg: Africa Centre for Evidence.
- Van Rooyen C, Tannous N. 2017. [What is the impact of marine resources management on multi-dimensional poverty in sub-Saharan Africa? A rapid evidence assessment report](#). Johannesburg: Africa Centre for Evidence.

2017 Blog Posts

- On the blog 'Visual diary of ESPA' (at <https://africacentreforevidence.org/visual-diary/>):
- Chisoro C, Erasmus Y, Opondo M, Tannous N (2017) April – May 2017 #ACE_ESPA engaging with Africa decision-makers using the interactive evidence interface.
- Chisoro C, Opondo M, Ravat Z, Tannous N (2017) May – June 2017 #ACE_ESPA is getting ready to start our rapid evidence assessments.
- Chisoro C (2017) September 2017: #ACE_ESPA investigates governance in protected areas in one of their rapid evidence assessments.
- Tannous N (2017) December 2017: #ACE_ESPA wraps up with incredible outputs from 12 months of work!
- Tannous N (2017) 17-18 August 2017: Department: Environmental Affairs (DEA) Biodiversity and Evidence Indaba.
- Tannous N (2017) January – March 2017: First quarter of #ACE_ESPA ends with an evidence map!
- Tannous N (2017) September 2017: The #ACE_ESPA team attends the Global Evidence Summit in Cape Town, South Africa from 13 to 17 September.

Sweden

Mistra EviEM

2017 and the start of 2018 will sadly mark the end of 6.5 years of core funding generously provided by Mistra, the Swedish Foundation for Strategic Research. Mistra EviEM will wrap up its current portfolio of projects by the end of May 2018, with a small number of projects continuing for a short period in collaboration with external partners. Fortunately, all EviEM reports will still be available at www.eviem.se for many years supported by the Foundation Mistra.

Two projects recently received funding in collaboration with colleagues at the SEI (Stockholm Environment Institute): BONUS Return (Reducing emissions by turning nutrients and carbon into benefits) and 3MK (Mapping the impacts of Mining using Multiple Knowledges) on the social-ecological impacts of metal mining in Arctic and Boreal systems; and will continue the EviEM legacy. Neal Haddaway, Biljana Macura, and Karolin Andersson from the EviEM secretariat will stay at SEI to work on those projects and pass on their experience in evidence synthesis to a variety of new and ongoing projects.

Claes Bernes will also stay at SEI, but his task during 2018 will be to prepare a handbook in Swedish on systematic reviews for scientists and stakeholders. Magnus Land and Sif Johansson will continue conducting evidence syntheses in environmental topics at the Swedish Research Council, Formas. SEI is keen to continue establishing evidence synthesis as a vital method in the work across its 10 centres worldwide, and whilst the exact format of a Swedish Centre is as yet uncertain, a strong presence will remain across SEI and Formas.



Goodbye from Mistra EviEM: (left to right) Andrew Pullin, Claes Bernes, Johan Edman, Jerry Melillo, Katherine Richards, Kjell Asplund, Lisa Sennerby Forsse, Sif Johansson, Eva Thörnelöf, Magnus Land, Biljana Macura, Neal Haddaway, Henrik Smith, Filipa Ek.

Training

EviEM has been particularly active in providing training in systematic review and map methodology. Neal Haddaway, Biljana Macura and Magnus Land have provided training both in Sweden and further afield. Their training courses continue to be developed and improved according to feedback, which is relayed to CEE through membership of Biljana and Neal in the CEE Training Methods Group. Courses were provided at the following locations in 2017:

- Lund University, Sweden
- Pontifical Catholic University of Chile, Santiago, Chile
- American University in Beirut, Beirut, Lebanon
- World Agroforestry Centre and SEI Stockholm, Nairobi, Kenya
- SEI Asia, Bangkok, Thailand
- Ben Gurion University, Negrev, Israel

Sweden

Presentation of the PFAS systematic review

The EviEM systematic review on the effects on the environment on the phase-out of PFAS awes presented at a meeting at the Swedish Chemical Agency (KemI) for the PFAS-network. This is a network of scientists and stakeholders established by KemI several years ago.

Presentation of the map and reviews on effects on soil organic carbon

The review team chair Katarina Hedlund arranged a workshop at Lund University in November 2017 to present and discuss soil organic carbon between scientists and stakeholders. To follow this, EviEM arranged a seminar at the Royal Swedish Academy of Agriculture and Forestry in Stockholm in April 2018 where they put their reviews on soil organic carbon in a larger context by additional presentations by both scientists and stakeholders. The results were presented by the project manager Neal Haddaway and the chair Katarina Hedlund at both seminars.



The Knowledge Needs Project in Chile

Neal Haddaway travelled with Jacqui Eales to help coordinate the Knowledge Needs Project at the Economic Commission for Latin America and the Caribbean (UN), Santiago, Chile in November 2017 in partnership with Rodrigo Arriegada (Pontifical Catholic University of Chile). Using Delphi-style processes, knowledge needs were collated and prioritized across environmental management issues relevant to Chile, via engagement with a large group of policy, practice and research experts from across the country. A report on the project is currently in production.

Workshop on qualitative methods.

Biljana Macura arranged a workshop on qualitative methods in systematic reviews in Stockholm. She had a two-fold purpose to both raise awareness about the development of qualitative methods and to strengthen a network of scientists working with qualitative systematic reviews.

CEESAT workshop

Mistra EviEM hosted a CEE workshop on the development of a tool for appraising reliability of literature reviews in environmental management (CEESAT Collaboration for Environmental Evidence Synthesis Appraisal Tool) for a group of invited persons engaged in further improving the tool.

The CEESAT workshop group: (left to right) Jacqui Eales, Neal Haddaway, Ruth Garside, Nicola Randall, Barbara Livoreil, Andrew Pullin, Geoff Frampton, Christian Kohl and Biljana Macura.

Sweden

Mistra EviEM Systematic Reports and Maps

During 2017 one systematic map and one review were published and an additional eight reviews were submitted for publication. The final number of Mistra EviEM maps and reviews will be 17 since the beginning of the project in 2012.

- Bernes, C. Bullock, J.M., Jakobsson, S., Rundlöf, M. Verheyen. K. and Lindborg, R. 2017. [How are biodiversity and dispersal of species affected by the management of roadsides? A systematic map.](#) *Environmental Evidence* 6:24
- Haddaway, N.R., Hedlund, K., Jackson, L.E., Kätterer, T., Lugato, E., Thomsen, I.K., Jörgensen, H.B. and Isberg P-E. 2017. [How does tillage intensity affect soil organic carbon? A systematic review.](#) *Environmental Evidence* 6:30

Additional Mistra EviEM Publications

- Haddaway, N.R. and Dicks, L.V. 2017. [Over-simplifying evidence synthesis? A response to Cook et al., 2017](#) *Biological Conservation*
- Land, M., Macura, B., Bernes, C. and Johansson, S. 2017. [A five-step approach for stakeholder engagement in prioritisation and planning of environmental evidence syntheses](#) *Environmental Evidence*, 6:25. Part of a thematic series on stakeholder engagement in systematic reviews and maps. Edited by Neal R. Haddaway and Sally Crowe. Read more [here](#).
- Eales, J., Haddaway, N.R. and Webb, A.J. 2017. [Much at stake: the importance of training and capacity building for stakeholder engagement in evidence synthesis](#) *Environmental Evidence*, 6:22. Part of a thematic series on stakeholder engagement in systematic reviews and maps. Edited by Neal R. Haddaway and Sally Crowe. Read more [here](#).
- Livoreil, B., Glanville, J., Haddaway, N.R., Bayliss, H., Bethel, A., Flamerie de Lachapelle, F., Robalino, S., Savilaakso, S., Zhou, W., Petrokofsky, G. and Frampton, G. 2017. [Systematic searching for environmental evidence using multiple tools and sources](#) *Environmental Evidence*, 6:23.
- Suškevičs, M., Hahn, T., Rodela, R., Macura, B. and Pahl-Wostl, C. [Learning for social-ecological change: a qualitative review of outcomes across empirical literature in natural resource management](#) *Environmental Planning and Management* 61:7, 1085-1112.
- Cooke, S.J., Birnie-Gauvin, K., Lennox, R.J., Taylor, J.J., Rytwinski, T., Rummer, J.L., Franklin, C.E., Bennett, J.R. and Haddaway, N.R. 2017. [How experimental biology and ecology can support evidence-based decision-making in conservation: avoiding pitfalls and enabling application](#) *Conservation Physiology*, 5:1.
- Cooke, S.J., Johansson, S., Andersson, K., Livoreil, B., Post, G., Richards, R., Stewart, R. and Pullin, A.S. 2017. [Better evidence, better decisions, better environment: emergent themes from the first environmental evidence conference](#) *Environmental Evidence*, 6:15.
- Haddaway, N.R., Kohl, C., Rebelo da Silva, N., Schiemann, J., Spök, A., Stewart, R., Sweet, J.B. and Wilhelm, R. 2017. [A framework for stakeholder engagement during systematic reviews and maps in environmental management](#) *Environmental Evidence*, 6:11. Part of a thematic series on stakeholder engagement in systematic reviews and maps. Edited by Neal R. Haddaway and Sally Crowe. Read more [here](#).
- Cooke, S.J., Wesch, S., Donaldson, L.A., Wilson, A.D.M. and Haddaway, N.R. 2017. [A call for evidence-based conservation and management of fisheries and aquatic resources](#) *Fisheries*, 42:3, 143-149.
- Haddaway, N.R., Collins, A.M., Coughlin, D. and Kirk, S. 2017. [A rapid method to increase transparency and efficiency in web-based searches](#) *Environmental Evidence*, 6:1.

United Kingdom

In 2017 the UK CEE Centre expanded to include three linked institutions, Bangor University, University of Exeter, and Harper Adams University. The combined expertise and capacity at these three institutions gives the UK CEE Centre an enhanced ability to support evidence synthesis across the spectrum of environmental decision-making.

The Centre for Evidence-Based Conservation (CEBC) at Bangor University is led by Professor Andrew Pullin. CEBC was established in 2003 with the goal of supporting decision making in conservation and environmental management. CEBC promotes evidence-based practice through the production and dissemination of systematic reviews on both the effectiveness of management and policy interventions and on the impact of human activities on the natural environment.

The Centre for Evidence Based Agriculture (CEBA) at Harper Adams University, led by Dr. Nicola Randall was established in 2012 to use evidence-based practice to support decision-making in agri-food policy, industry, practice and research. The CEBA carries out evidence synthesis research, and provides training and advice for agricultural and food chain organizations. Staff at the Centre have specialized in developing systematic mapping methodologies, and in working with policy organizations to integrate evidence synthesis into policy decision-making.

The European Centre for Environment and Human Health (ECEHH), part of the University of Exeter Medical School was established in 2011 to research two core areas: emerging threats to health and wellbeing posed by the environment, and the health and wellbeing benefits that the natural environment can provide. Dr. Ruth Garside, Senior Lecturer in Evidence Synthesis at the Centre is the CEE contact at Exeter.

Current joint activities of the Centre include:

- Running the Editorial Office of the CEE Journal 'Environmental Evidence'
- Running a series of CEE training courses and placements in evidence synthesis (CEETOP) funded by the UK Natural Environment Research Council.
- Coordinating CEE's involvement in the Global Evidence Synthesis Initiative

www.gesiinitiative.com that seeks to build capacity for evidence synthesis in low to middle income countries



Members of the UK CEE Centre: (left to right) Andrew Pullin, Ruth Garside, Nicola Randall

A Spotlight on: The Training Team



Training team: (left to right)
Biljana Macura, Jacqui Eales, Teri
Knight, Neal Haddaway



Jacqui Eales and Neal Haddaway
deliver methods course in
Santiago, Chile

In 2017 the training team has continued to develop the scheme for endorsing and supporting CEE trainers and course materials. A small number of course providers continue to deliver the bulk of CEE training, but there is a promising growth in the number of trainers seeking endorsement towards the end of 2017. EviEM provided the bulk of international training with various courses both in Sweden and abroad (Lebanon, Kenya, Thailand, Chile, and Israel). Many of these courses were provided through new or established networks that have helped to raise the profile of CEE and its training, including Global Evidence Synthesis Initiative, Stockholm Environment Institute, and the new group in Latin America. The CEE Centre at Carleton University in Canada is also beginning to provide training in SR/SM methods and its trainers are seeking endorsement for themselves and their material. The training team itself has grown to include Biljana Macura, and has focused its efforts on streamlining and improving the endorsement scheme to recognise two tiers of trainers. The team also plans to hold regular webinars to support novice trainers.

9 courses

6 countries

121 participants

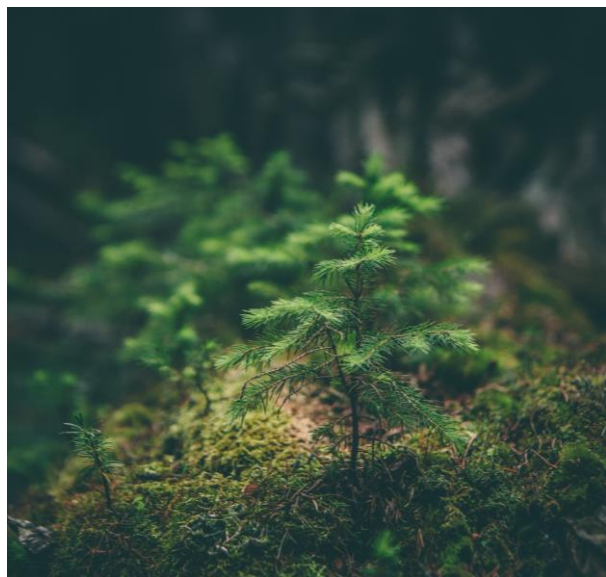
A Spotlight on: The Guidelines Editorial Team



Guidelines Editorial Team: (left to right) Barbara Livoreil, Geoff Frampton, Gillian Petrokofsky

Version 5 of the Guidelines, representing a significant revision of Version 4.2 (2013) has been developed over five years, overseen by the Guidelines Editorial Group (Geoff Frampton, Barbara Livoreil and Gillian Petrokofsky) who have worked on a part-time voluntary basis under the approval and guidance of the Editor (Andrew Pullin) and the CEE Board of Trustees. The Guidelines Editorial Group called on a large number of people to help in the collaborative process of revision. Thanks are due to all who contributed. In order to keep costs as low as possible, the Guidelines Editorial Group progressed the work through a series of online meetings and email exchanges, and a two-day meeting held in Oxford in November 2016. The revised Guidelines comprise ten sections, which refer to published methods papers in Environmental Evidence, including several papers published by the Guidelines Editorial Group and their co-authors. All sections also take note of developments in systematic evaluations in other Collaborations and guidance produced by organizations with expertise in such evaluations. The guiding principle of the revision has been to identify strengths and limitations of CEE's existing guidelines, clarify previous guidance where this has been lacking or ambiguous, and respond to new developments in the area of evidence synthesis to improve the consistency, transparency and quality of evidence syntheses that are submitted to the CEE and Environmental Evidence journal.

A Spotlight on: Stakeholder Engagement



Launched in 2017 in the Environmental Evidence Journal, the [Stakeholder Engagement in Systematic Reviews and Maps Special Issue](#) is a series of commentary articles that discusses various aspects of engaging with stakeholders: describing the ranges of methods available, outlining experiences from various systematic review experts, and discussing issues relating to conflict, the benefits of training, engaging directly with decision-makers, and communicating review results. Edited by Neal Haddaway and Sally Crowe, seven contributions were published in the special issue in 2017:

N. R. Haddaway, C. Kohl, N. Rebelo da Silva, J. Schiemann, A. Spök, R. Stewart, J. B. Sweet and R. Wilhelm. **A framework for stakeholder engagement during systematic reviews and maps in environmental management**

Rasmus Kløcker Larsen and Annika E. Nilsson. **Knowledge production and environmental conflict: managing systematic reviews and maps for constructive outcomes**

Laurenz Langer, Yvonne Erasmus, Natalie Tannous and Ruth Stewart. **How stakeholder engagement has led us to reconsider definitions of rigour in systematic reviews**

Jacquelyn Eales, Neal R. Haddaway and J. Angus Webb. **Much at stake: the importance of training and capacity building for stakeholder engagement in evidence synthesis**

Magnus Land, Biljana Macura, Claes Bernes and Sif Johansson. **A five-step approach for stakeholder engagement in prioritisation and planning of environmental evidence syntheses**

Jessica J. Taylor, Trina Rytwinski, Joseph R. Bennett and Steven J. Cooke. **Lessons for introducing stakeholders to environmental evidence synthesis**

Sandy Oliver, Paul Garner, Pete Heywood, Janet Jull, Kelly Dickson, Mukdarut Bangpan, Lynn Ang, Morel Fourman and Ruth Garside. **Transdisciplinary working to shape systematic reviews and interpret the findings: commentary**

Environmental Evidence Journal

The official journal of the CEE is Environmental Evidence, an open-access journal that accepts submission of systematic reviews, systematic maps, review and map protocols, commentaries and methodological papers related to the conduct of systematic reviews.

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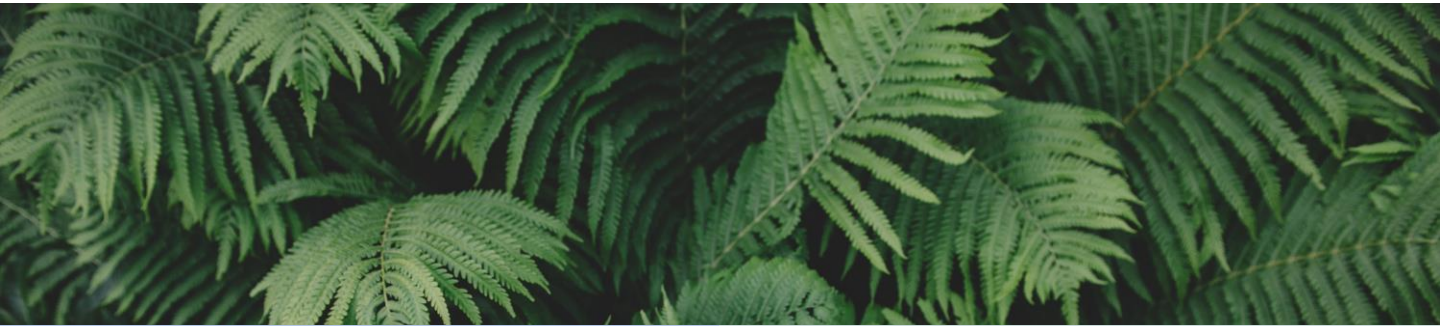
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Environmental Evidence

Protocols

Reviews and Maps in Progress



<p>What are the impacts on temperate fish productivity of shoreline works activities? A systematic review protocol Sommer Abdel-Fattah and Sarah Hasnain</p>	<p>Response of chlorophyll a to total nitrogen and total phosphorus concentrations in lotic ecosystems: a systematic review protocol Micah G. Bennett, Kate A. Schofield, Sylvia S. Lee and Susan B. Norton</p>
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<p>What are the consequences of fish entrainment and impingement associated with hydroelectric dams on fish productivity? A systematic review protocol Trina Rytwinski, Dirk A. Algera, Jessica J. Taylor, Karen E. Smokorowski, Joseph R. Bennett, Philip M. Harrison and Steven J. Cooke</p>	<p>What is the evidence that gender affects access to and use of forest assets for food security? A systematic map protocol Linley Chiwona-Karltun, Ngolia Kimanzu, Jessica Clendenning, Johanna Bergman Lodin, Chad Ellingson, Gun Lidestav, David Mkwambisi, Esther Mwangi, Isilda Nhantumbo, Caroline Ochieng, Gillian Petrokofsky and Murat Sartas</p>
<p>How does roadside vegetation management affect the diversity of vascular plants and invertebrates? A systematic review protocol Claes Bernes, James M. Bullock, Simon Jakobsson, Kris Verheyen and Regina Lindborg</p>	<p>What specific plant traits support ecosystem services such as pollination, bio-control and water quality protection in temperate climates? A systematic map protocol Claire J. Blowers, Heidi M. Cunningham, Andrew Wilcox and Nicola P. Randall</p>
<p>What are the type, direction, and strength of species, community, and ecosystem responses to warming in aquatic mesocosm studies and their dependency on experimental characteristics? A systematic review protocol Tamar Guy-Haim, Harriet Alexander, Tom W. Bell, Raven L. Bier, Lauren E. Bortolotti, Christian Briseño-Avena, Xiaoli Dong, Alison M. Flanagan, Julia Grosse, Lars Grossmann, Sarah Hasnain, Rachel Hovel, Cora A. Johnston, Dan R. Miller, Mario Muscarella, Akana E. Noto, Alexander J. Reisinger, Heidi J. Smith, Karen Stamieszkin</p>	<p>What is the evidence for the contribution of forests to poverty alleviation? A systematic map protocol Samantha H. Cheng, Sofia Ahlroth, Stefanie Onder, Priya Shyamsundar, Ruth Garside, Patti Kristjanson, Madeleine C. McKinnon and Daniel C. Miller</p>
<p>What are the impacts of flow regime changes on fish productivity in temperate regions? A systematic map protocol Trina Rytwinski, Jessica J. Taylor, Joseph R. Bennett, Karen E. Smokorowski and Steven J. Cooke</p>	<p>What evidence exists on the impact of agricultural practices in fruit orchards on biodiversity indicator species groups? A systematic map protocol Markus van der Meer, Gisela Lüscher, Sonja Kay and Philippe Jeanneret</p>
	<p>Assessing the global distribution of river fisheries harvest: a systematic map protocol Chelsie L. Romulo, Zeenatul Basher, Abigail J. Lynch, Yu-Chun Kao and William W. Taylor</p>

Systematic Reviews



How does tillage intensity affect soil organic carbon? A systematic review

Neal R. Haddaway, Katarina Hedlund, Louise E. Jackson, Thomas Kätterer, Emanuele Lugato, Ingrid K. Thomsen, Helene B. Jørgensen and Per-Erik Isberg

What are the environmental impacts of property rights regimes in forests, fisheries and rangelands?

Maria Ojanen, Wen Zhou, Daniel C. Miller, Sue Helen Nieto, Baruani Mshale and Gillian Petrokofsky

Systematic Maps

How are biodiversity and dispersal of species affected by the management of roadsides? A systematic map

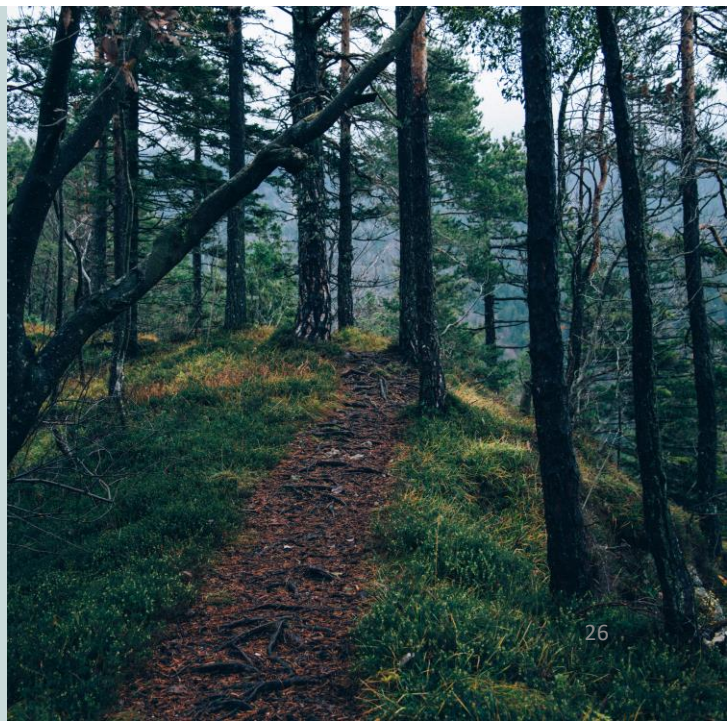
Claes Bernes, James M. Bullock, Simon Jakobsson, Maj Rundlöf, Kris Verheyen and Regina Lindborg

Evidence for changes in the occurrence, frequency or severity of human health impacts resulting from exposure to alien species in Europe: a systematic map

Helen R. Bayliss, Stefan Schindler, Mildren Adam, Franz Essl and Wolfgang Rabitsch

The environmental, socioeconomic, and health impacts of woodfuel value chains in Sub-Saharan Africa: a systematic map

Phosiso Sola, Paolo Omar Cerutti, Wen Zhou, Denis Gautier, Miyuki Iiyama, Jolien Schure, Audrey Chenevoy, Jummai Yila, Vanessa Dufe, Robert Nasi, Gillian Petrokofsky and Gill Shepherd



Securing the Future of CEE



The Collaboration for Environmental Evidence was established in 2007 and is registered for charitable purposes within the UK. In line with legal requirements, the endeavors of CEE satisfy three 'charitable purposes':

- the advancement and improvement of environmental protection
- the advancement of science
- the advancement of education

and the two 'public benefit principles': the general public will benefit from more effective environment management and conservation action because those working in the environmental sector will be able to more easily access information to help them improve the effectiveness of their work. The CEE places no restrictions on who can benefit.

The CEE Constitution sets out how the CEE will operate within Charity Law. The CEE operates as a 'not-for-profit' organization and has a Board of Trustees responsible for proper governance of the CEE, probity, adherence to regulations for 'not for profit' organizations and charity law. The CEE is open to all who wish to contribute to the conduct, or use, of CEE Systematic Reviews and who are committed to the principle of evidence-based practice. As CEE activity increases through greater engagement in systematic reviews, Thematic and Methods Groups, and the establishment of new CEE Centres, the demands placed the CEE infrastructure are also increasing.

The continued success of CEE's 'open-access' strategy is dependent on adequate and sustainable funding of the core infrastructure. Many funding streams, such as environment research grants, do not fund infrastructure costs and environmental funding tends to support direct action. CEE therefore seeks donations to enable it to continue to support and coordinate environmental management systematic review activity worldwide.

Potential donors are encouraged to contact us at: info@environmentalevidence.org

Thank You

The existence and growth of the CEE is due in no small part to a wide range of individuals and organizations who have actively supported its vision and aims, either through funding, giving it visibility in key arenas, through giving their time to key CEE activity, or through active involvement in CEE Systematic Reviews. Particular thanks for 2017 are due to:

- The Trustees
- CEE Guidelines Editorial Board
- Leaders and staff of CEE Centres
- Leaders and contributors to CEE Groups
- Commissioners and funders of CEE Systematic Reviews
- Review authors, stakeholders and peer-reviewers
- Volunteers and supporters
- BioMed Central and the EEJ Editorial Board

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