



Interdisciplinary Conservation Network workshops at ICCS



Why is ICN needed?

The transition from student to independent researcher is a big challenge. Not only are there a multitude of transferable skills to be honed, but the availability of opportunities is often dependent on an Early Career Researcher's (ECR's) professional networks, which can be challenging to cultivate. This is even more the case for ECRs based in low income countries.

Furthermore, employers are often looking for examples of leadership that are hard for ECRs to provide, largely because there are few opportunities for them to truly drive decision-making in a research context, where more established researchers often take the lead. There are also few opportunities for ECRs to have the space to think together about important, cross-cutting or topical issues. This means that they rarely write high-profile, discipline-shaping opinion pieces for high impact journals, and early-career voices are missing from scientific debates.

This issue is particularly urgent to address in conservation, where ECRs (particularly from low income countries) are the future leaders of the interdisciplinary research teams that the planet needs.



How do ICN workshops help?

The aim of the [Interdisciplinary Conservation Network \(ICN\) workshops](#) is to provide ECRs with an opportunity to develop collaborative research with other ECRs from around the world, while learning key skills for the development of their careers.

By using a bottom-up approach to planning and design, ICN workshops allow a team of ECRs to take charge of their own event. This helps them to build new networks, and produce an output that is relevant to their own research. At the same time, the participation of a few selected senior researchers ensures a high quality capacity-building and mentorship element to the workshops.



“When we first started the predecessor of ICN in 2007, I was a PhD student with E.J. and there was a gap in the conservation conference and workshop list at the transition from PhD student to postdoc. More than a decade later, ICN is still unique not only through empowering ECRs but also by bringing people together from different disciplines, cultures and continents in a creative and open way.”

Prof Nils Bunnefeld, University of Stirling

Workshop planning

Each ICN workshop is a collaboration between Oxford-based ECR conservation scientists and one or two like-minded external research groups. ECRs brainstorm research theme ideas in an online forum, and collaboratively choose three themes per workshop. They choose mentors per theme to join them, and decide on transferable skills sessions that they would like to receive.

The ICN workshops are advertised openly for applicants from universities and NGOs worldwide, and participants are selected based on their ability to bring new ideas and experiences to the theme. To keep the workshops small and interactive, the ECRs accept up to 12 participants per theme, of whom at least three are fully-funded from low income countries.

The ECRs organise the workshop together, supported by their senior mentors and the ICCS Research Coordinator. This includes choosing the venue, schedule and catering.



“The bottom-up process used to determine the focus of the workshops ensures that the participants have full ownership of the event and the motivation to continue the work after the event itself is over.”

Diogo Veríssimo, Postdoc

The workshop itself

The workshop kick-starts a piece of collaborative research which concludes in a publication authored by the participants. For many attendees, this is their first experience of developing research ideas in a workshop format. Over the course of three days, delegates work in small groups to develop their concept supported by their mentors.

The result is a unique combination of hands-on learning and real outcomes, both in terms of publication but also in building ongoing networks with peers.

Delegates at the ICN workshop 2018



"I think seeing the progression of brainstorming to refinement and a final concept 'pitch' (with some well-placed advice from our mentors along the way) was such a useful experience. It's definitely not easy, but I now feel like I have a positive reference point for collaborative research into the future."

Simone Stevenson, PhD student



Previous research themes include:

- Ethical conflicts in interdisciplinary research
- Measuring and predicting conservation conflicts
- Indicators for monitoring and predicting conservation policy interventions
- Applying predictive approaches to conservation
- Integrated interdisciplinary approaches for managing wicked conservation conflicts
- The future for no-net-loss of biodiversity in the marine environment

The workshops are structured into three research themes, which are complemented by 'Conservation Pathways' sessions from leading conservation scientists.

Conservation Pathways are a set of interactive sessions on topics chosen by the ECR organisers, given by the senior mentors and guest speakers. During these sessions delegates learn from their guests' experiences, in areas such as:

- How our biases affect our research
- Embedding your research into conservation decision-making
- Different career pathways for conservation scientists
- How to get your work published, and how to participate in the journal review process
- Communicating science through the media



"ICN workshops provide us with the opportunity to collaborate with and build working relationships with established researchers on an even playing field, broadening our networks and confidence. The workshops allow us to gain collaborative research experience and co-produce research of conservation importance as a team."

Stephanie Brittain, Postdoc

The workshop outputs

Although ICN workshops are more than just about getting a joint publication, they have been very successful in this respect. From the two ICN workshops held in 2016 and 2018, the following outputs are published or in progress. Bursary recipients are in bold, ECR organisers are underlined and mentors are in italics.



ICN 2016

Arlidge William N S, **Joseph W Bull**, Prue F E Addison, Michael J Burgass, **Dimas Gianuca**, Taylor Gorham, Céline Jacob, Nicole Shumway, Samuel P Sinclair, *James E M Watson*, Chris Wilcox, *E J Milner-Gulland*, "[A Global Mitigation Hierarchy for Nature Conservation](#)", *BioScience*, Volume 68, Issue 5 (2018), 336–347.

Mason Tom, Chris Pollard, **Deepthi Chimalakonda**, **Angela M. Guerrero**, Catherine Kerr□ Smith, Sergio Milheiras, **Michaela Roberts**, **Paul R. Ngafack**, *Nils Bunnefeld*. "[Wicked conflict: Using wicked problem thinking for holistic management of conservation conflict](#)." *Conservation letters* 11, no. 6 (2018), e12460.

Travers Henry, Matthew Selinske, Ana Nuno, Anca Serban, Francesca Mancini, Tatsiana Barychka, Emma Bush, **Ranaivo A. Rasolofson**, *James EM Watson*, *E. J. Milner-Gulland*. "[A manifesto for predictive conservation](#)." *Biological Conservation*, volume 237 (2019), 12-18.



ICN 2018

Brittain Stephanie, Harriet Ibbett, Emiel de Lange, Leejiah Dorward, Simon Hoyte, Agnese Marino, *E.J. Milner-Gulland*, Julia Newth, Sarobidy Rakotonarivo, Diogo Verissimo, *Jerome Lewis* (in review). "On the ethics of social science research in biodiversity conservation". *Conservation Biology*.

Burgass Michael, Cecilia Larrosa, Derek Tittensor, Hernan Caceres-Escobar, Abbey Camaclang, Shannon Hampton, Ciaran McLaverty, *Emily Nicholson*, **Victor Muposhi**, **Carolina Pinto**, Jessica Rowland, Simone Stevenson, Kate Watermeyer, *E.J. Milner-Gulland* (in review) "Key considerations for biodiversity conservation in multilateral agreements". *Conservation Letters*.

Cusack Jeremy, Tom Bradfer-Lawrence, John Wilson, Zac Baynham-Herd, Sofia Castello y Tickell, Isla Duporge, Håvard Hegre, Lara Moreno-Zárate, **Vincent Naude**, Sahil Nijhawan, **Dario Gerardo Zambrano Cortes**, *Nils Bunnefeld* (in prep). "Measuring the intensity of conservation conflicts".

"The ICN provides remarkable opportunities for early career researchers and students to interact, collaborate and solve important environmental challenges. I feel it is the world leading network when it comes to this type of networking and mentoring, and I am sure it is producing a set of the next future leaders in conservation."

Dr James Watson, Wildlife Conservation Society and University of Queensland



ICN in numbers

Our two ICNs were funded by the Tasso Leventis Foundation and the University of Oxford, and ICN 2018 was also part-funded by the Pew Charitable Foundation. Co-funding for their teams' participation came from our collaborators: [Stirling Conservation Science](#) at Stirling University (STICS), the [Centre for Biodiversity and Conservation Science](#) at the University of Queensland and the [Centre for Integrative Ecology](#) at Deakin University.

The workshop budget, which the ECRs controlled (with guidance), was £10,000 per workshop. Bursaries covered travel costs for sponsored delegates, and the budget was balanced by charging non-bursary delegates for some of the cost of their attendance.

Over the two workshops, we have had:



140 applications to participate



from **27** countries



81 bursary applications



13 bursaries awarded



51 attendees



from **>25** nationalities

Funded by:

