

CBCS NEWS

A quarterly newsletter
Issue 17 — Autumn 2024

Capturing nature's beauty: CBCS nature photography competition

Dr Christina Zdenek  and Tom Lloyd 

The 2023 end-of-year CBCS nature photography competition brought together 27 enthusiastic participants for an engaging and highly successful workshop.

Funded by the CBCS Small Grants Scheme and organised by Dr Christina Zdenek and Tom Lloyd, the competition aimed to showcase the rich biodiversity of Australian wildlife, encouraging both CBCS members and the wider community to appreciate and learn about our unique ecosystems.

Additionally, the competition celebrated photography skills of our talented members and friends, and will enhance the aesthetic appeal of our indoor common areas once the prints are made and mounted.

The competition was followed by a friendly awards pizza party at Saint Lucy's Caffè e Cucina, where winners were not only recognised for their exceptional skills but also empowered to further explore the world of nature photography.

Image Jacqui Foster's *Looking over the headland at the North Burleigh surf on a windy day*. Credit: Jacqui Foster.



The workshop was led by award-winning professional wildlife photographers Jasmine Vink and Jannico Kelk. It featured a mix of theory and practice, filling a gap by enhancing the photography skills of CBCS members, particularly for science communication. Through interactive sessions and one-on-one photo and personal camera discussions, participants improved their photography knowledge to ethically capture the essence of nature, helping our community to take a lead in communicating our research visually. Fostering connections between CBCS members and outside experts helped create a network that can further enrich our collective knowledge and passion for nature and photography.

We are excited about the lasting impact of this event and look forward to future initiatives that also promote inclusion, leadership and shared learning.

Winners in each category



Wildlife

- 1 Yang Wu (osprey image)
- 2 Valerio Tettamanti (clownfish image)
- 3 Coen Hird (shedding cicada image)



Wildlands

- 1 Jacqui Foster (aerial beach image)
- 2 Geoff Heard (waterfalls image)
- 3 Tom Lloyd (gum tree image)



Runner-up

Christina Zdenek (earless dragon image)



Images (clockwise from left) Yang Wu's *Osprey Under the Moonlight*. Christina Zdenek's *Earless dragon*. The facilitators Jasmine and Jannico had everybody's rapt attention in their workshop.

Fostering connections between CBCS members and outside experts helped create a network that can further enrich our collective knowledge and passion for nature and photography.

Images (clockwise from top) Valerio Tettamanti's *Clownfish*. Geoff Heard's *Josephine Falls*. Tom Lloyd's *Larapinta Ghost Gum*. Coen Hird's *Shedding Cicada*. The post-awards pizza party at Saint Lucy's.



PROFILE

From economics to ecology and half-way back again

Professor Jonathan Rhodes 

The start

I suddenly realised that I didn't want to do this job anymore – working to make more money for rich people was no longer exciting! This was back in the mid-1990s, and I was working as an investment manager in the City of London mainly managing large bond portfolios and dabbling in a bit of quantitative economic forecasting (which I was never very good at, but who is?). Five years earlier I had graduated with an undergraduate degree in economics and mathematics from the University of Kent in the UK. I had more or less fallen into my first “real” job and, while it was exciting for a while, I felt I needed more purpose in my work. So, I quit and, with really no idea what I wanted to do next, spent the next 18 months or so travelling the world. Sounds a bit aimless, right, but the experiences I gained doing this were incredibly formative and I think really shaped a lot of how I now feel about the world.

Making a career in ecology and conservation

Having spent a lot of my childhood running around the bush barefoot where I grew up in Papua New Guinea and Zambia, I had always had a very strong interest in nature – I just never thought I could make a career out of it! That all changed when I went back to university to do an ecology degree at the University of East Anglia, where I started to understand the important role that ecologists play in conserving biodiversity. And, at last, I could see a pathway to a career in conservation science. Having spent two summers as an undergraduate running expeditions to Madagascar to survey lemurs, I was hooked and decided I really wanted a career in conservation science. That brought me to Brisbane to do a PhD on koalas at The University of Queensland in 2001 ... don't tell anyone, but I actually wanted to do a PhD on primates, but the koala opportunity came up and I figured, “How different can koalas be from primates anyway?” (Actually, quite different, I was to find out!)



With really no idea what I wanted to do next, I spent the next 18 months or so travelling the world. Sounds a bit aimless, right, but the experiences I gained doing this were incredibly formative and I think really shaped a lot of how I now feel about the world.

Image With (L-R) CBCSers Frankie Cho, Shu Chen and Brooke Williams at the CBCS event “The Price of Neglect” in July 2023. Credit: Brooke Williams.



Forays into planning and policy

UQ was (and still is) an amazing place to learn to do conservation science, with inspirational mentors who really helped mould my PhD and subsequent work which was heavily influenced by landscape ecology and decision science. The insights this provided completely changed the way I thought about applied research. Rather than thinking of it as a process for answering “interesting” questions, I started to think of it as a process for answering “useful” questions informed directly by conservation planning and policy challenges. At this point, I was still doing quite a lot of ecological research but now I started to have my first forays into policy and planning and to do less ecology. I began to realise that the major barriers to successful conservation were not really a lack of ecological information (we have done quite a lot of work showing this!), but often an inability to overcome social, economic, and political barriers. Engaging in policy and planning processes I felt was therefore one way to try to overcome some of these barriers,

so I started to spend a lot of time working on policy and decision-making questions primarily with state and federal governments.

In 2017, I chaired the Queensland Government's Koala Expert Panel that led directly to an overhaul of the state's koala conservation and planning framework for south-east Queensland, and this was my first major success in influencing policy (hopefully for the better!).

Where to next?

As conservation scientists, we work in a world where biodiversity loss is driven by a wide range of social and economic factors and these same factors often influence conservation intervention success. Of course, ecological processes are important, but it is understanding the intersection of ecology with social, economic and political processes where real solutions are going to be found. I'm currently particularly interested in the implications of social and economic drivers operating at global scales on local scale conservation planning and policy solutions and how we integrate policy settings across scales.

So, these days, I find myself thinking even more beyond ecology in trying to solve the world's major conservation problems. (Where did I put my old undergraduate economic textbooks again?) I've recently made the move from UQ to the Queensland University of Technology, and will be continuing to focus my ongoing work on integrating global to local interactions into conservation planning and policy.

I'm driven in my work by the opportunity for making the world a better place, and by focusing our work across multiple scales at which policy decisions I reckon can increase our chances of success.

It is at the intersection of ecology with social, economic and political processes where real solutions are going to be found.



Images (left to right) Bird watching in Lamington National Park. Credit: David Salt. Queensland Government Koala Policy Press Release with then Environment Minister Leeanne Enoch. Credit: Catherine George.



Dr Tatsuya Amano selected as one of the ten “notable contributions to science and technology in 2023” in Japan

The National Institute of Science and Technology Policy in Japan announced in late 2023 its 10 “notable contributions to science and technology in 2023” awardees, one of whom is CBCS Chief Investigator **Dr Tatsuya Amano**. Dr Amano's award honours his work on accelerating biodiversity conservation through the fostering of diversity in science.

Every year the National Institute of Science and Technology Policy selects 10 early to mid-career researchers who have made outstanding contributions in any field of science and technology. The award was established in 2005 and its past recipients include two Nobel Prize laureates.

Tatsuya's 2023 award recognises his significant contribution to understanding the multi-faceted impact of language barriers on biodiversity conservation and science in general, and his efforts to propose practical solutions.

For example, his team's recent work highlighting the gravity of the hurdles faced by non-native English speakers in science has swept the academic world, gaining over 70,000 views over the past seven months and being repeatedly featured in the media around the world, including *Nature*, *Science*, the ABC, *Le Monde*, *Scientific American*, *Japan Times* and so on.

Tatsuya's innovative **translatE** project is growing, further boosted by a new **ARC Discovery Project**. CBCS's **Violeta Berdejo-Espinola**, now a postdoc in the project, is working on the use of artificial intelligence tools for tackling language barriers in conservation, while **Kelsey Hannah** has just published her first PhD chapter on barriers and solutions to including non-English-language literature in environmental systematic literature reviews.

Tatsuya stresses that the success of the project is thanks to the enormous contribution from over 100 collaborators from around the world.

Their skills, knowledge, experience and, most importantly, their passion to conserve nature on this planet are what the **translatE** team sees as the key to tackling the unprecedented challenges facing the world today. Tatsuya and his team are determined to keep working to unlock the untapped potential of currently underrepresented knowledge and people in science.



Image Tatsuya's National Institute of Science and Technology Policy award. Credit: Tatsuya Amano.

We're working to unlock the untapped potential of currently underrepresented knowledge and people in science.

CBCS 2023 end-of-year party

Everyone loves a party, including the many CBCS lounge lizards.

Around 80 revellers came along for the good times on Tuesday 5 December at the Toowong Rowing Club. One keen herpetologist brought a friend, who came out to play as the night went on.

Special thanks to bartender Joe Watkins, who has helped make the night a success two years running now.



Images (left to right) Before shot of Joe. Credit: Kate Donnelly. After shot. Credit: Alejandro Garza-Garcia.





Images (clockwise from top left) Workshop run by Dr Chris O'Bryan. Camaraderie at the HDR retreat. HDR students bonding over a game of Finska. Credit: Chloe Dawson.

CBCS HDR retreat to Noosa

Chloe Dawson

CBCS HDR Representative – Community

With Noosa as its charming backdrop, the November 2023 CBCS HDR retreat unfolded as a blend of community bonding, academic enrichment and relaxation. Despite the rainy weather, students enjoyed Noosa's pristine beaches, and seized the opportunity to forge new connections and learn from **Dr Chris O'Bryan** during a 'Post-PhD Pathways' workshop.

I left the retreat feeling much more a part of the CBCS community.

Celebrating achievements

The retreat gave HDR students the chance to meet new people and explore the diverse research that is being undertaken within our cohort. **Gillian Rowan**, a PhD candidate who attended the retreat said, "As my workspace is in a different building to most of CBCS and SENV, I really appreciated the retreat as a way to connect to other students that I wouldn't otherwise have met. I left the retreat feeling much more a part of the CBCS community!"

The retreat involved a trivia night featuring questions that prompted celebration of achievements within our academic community, such as **Associate Professor Carissa Klein's** 2023 Queensland Tall Poppy of the Year award and **Dr Matt Holden's** love for rock climbing. The questions tested the limits of our HDR cohort for their knowledge of Australia, popular culture and science. The trivia night was facilitated with the help of two students, **Aharon Fleury** and **Gillian Rowan**. Their help was integral in creating a fun experience for everyone.

When asked about it, **Aharon** said, "I had a great time at the retreat. I appreciated being able to contribute and take on more responsibility within the community by aiding our HDR representative, **Chloe**, in preparing and running a trivia night."

Breaking the ice

With the recent merger between the School of Biology and School of Earth and Environmental Sciences, the retreat was an opportunity to break the ice between students from both schools who shared an interest and passion for biodiversity and conservation.

PhD candidate **Jaime Restrepo** said, "It was a great experience! The highlight for me was being able to connect with HDR students from the [former] School of Biology and build a sense of community, not just within CBCS but also within the School of the Environment."

The weekend was completed by the informal workshop run by Dr Chris O'Bryan. The workshop provided insight and mentorship, guiding students through the academic journey beyond doctoral studies. Chris provided practical advice on how to make the most of being a PhD candidate in preparation for entering the workforce in the future. HDR students actively participated, asking questions and contributing to group discussions.

Overall, the retreat was a huge success. I hope that we can continue to foster these relationships in the future with new incoming HDR students.





CBCS at the British Ecological Society conference

Nicola Sockhill

CBCS HDR Representative – Research

For the Australian urban ecologist, relevant conferences are hard to find. The British Ecological Society Annual Meeting (BES conference) is one of the biggest ecological conferences in the world, and includes a fantastic array of symposia displaying Europe's top ecological research. I was accepted to present a talk at the 2023 conference, held in Belfast, Northern Ireland, so I gladly made the journey in December last year.

Overwhelming opportunities

The conference was held just before the end of the working year; you can imagine the energy of a conference centre full of intellectually stimulated ecologists also excited to imminently knock off for the year. There were overwhelming opportunities to make new friends, attend end-of-year celebrations and, of course, share ecological ideas. Most attendees were from Europe, with some from other places farther away, including only a few from Australia and just two from UQ!

My research focuses on how different design features and other variables influence biodiversity in urban greenspaces, so the BES conference was a perfect opportunity to show this work to researchers in my specific field. It was exciting to meet other urban ecologists, especially those who use similar types of data to conduct their research.

Images (clockwise from top left) Birding at the London Wetlands Centre. Nicola presenting at BES. Julian Radford-Smith (Dwyer lab) and Nicola at the Belfast Botanic Gardens. Swans in London's Hyde Park. International Conference Centre Belfast. Credit: Nicola Sockhill.

Birds and humans

I presented in the *Nature and Humans: Urban Systems* session, and discussed my work investigating how vegetation complexity drives bird species richness. Ironically, the city of Belfast had very little vegetation (or complexity) especially in the middle of winter, and I only saw about 10 bird species, amusingly validating my findings in a very disparate environment to Brisbane! Nevertheless, Belfast was a great city to explore for a few days.

This trip also gave me a great excuse to travel and network with researchers across the country. In addition to the conference itself, I toured around the UK visiting places like London, Nottingham and St Andrews to meet various colleagues and present my work. I also snuck in quite a bit of birding (although unfortunately only got nice photos of domesticated ducks and geese, despite seeing 100 bird species on the trip)!

I very much appreciate my funders; I truly could not have attended without CSIRO, the Fuller lab, the School of the Environment and Birds Queensland.

The BES conference was a perfect opportunity to show my work to researchers in my field.





PROFILE

From rowing to my dream career: Upstream into research

Maddison Brown 

CBCS HDR Representative – Engagement

At the age of 17, my career path seemed clear as I proudly represented Australia in the green and gold. Excelling in rowing had set the course for what appeared to be a defined trajectory. I found my sense of purpose, pulling on oars!

The journey continued with an offer of a full scholarship as a student-athlete at the University of California, Berkeley. There I studied environmental science, running perpetually late for class, rocking up with wet hair and a granola bar hanging from my mouth, trying to stay awake during calculus. Balancing the demands of the gym and the boat, I found time to immerse myself in research. I delved into labs, exploring the realms of marine/aquatic biology, and even had the opportunity to conduct lab work for a PhD student. This experience offered me a taste of the freedom and independence that came with being a PhD student engaging in research on a topic of personal interest, one with broader world implications and impact.

Rowing for Australia – and back to Australia

During my time at UC Berkeley, while seated in the varsity boat, we achieved a remarkable double victory by winning both a National Championship and the team NCAA Championship. Two months later, that American college summer, I was back racing for Australia in the U23 World Championships in Poznan, Poland and the World Cup 2 in Lucerne, Switzerland.

However, as the pandemic unfolded, circumstances brought me back to Australia, prompting a re-evaluation of a career that had once felt so assured. The boredom of lockdowns became the canvas for contemplating not just the life of a full-time athlete but also pondering what lifestyle I genuinely desired.

Six months of training in makeshift home garages, staring at a rowing machine for hours a day during Melbourne lockdown, further fuelled a shift, causing me to question my once-unshakeable passion for the sport. I began to reconsider my goals and decided to part ways with rowing.

Within 48 hours of another interstate lockdown, I hastily packed up my bags, zooming up the highway to the Sunshine Coast. There, I embarked on a one-year Honours research project with Professor Nick Paul and the Seaweed Research Group at the University of the Sunshine Coast. My research focused on the Moreton Bay Rock Oyster Farm, evaluating the viability of seaweed and oyster co-culture. Among the difficulties, I revelled in the research process – from fieldwork and data collection, snorkelling, and conducting surveys, to maintaining aquaria, lab work processing samples, and the eventual desktop write-up and presentation.

Image Rowing to research. Credit: Australian Rowing Team.





I am privileged to be part of a vibrant community of exceptional scientists. I am enthusiastic about making connections and ensuring that HDR students feel connected to this wonderful community.

Fulfilment

Following the completion of my Honours I secured a short-term contract in Noosa working for The Nature Conservancy's Noosa Oyster Reef Restoration Project, restoring lost oyster reefs to the river. Engaging in fieldwork within a tidal estuary, working on boats, and educating the public about these new reef installations became a fulfilling experience.

Now, I am pursuing a PhD program under the guidance of **Professor Catherine Lovelock**, along with **Dr Valerie Hagger** (UQ) and **Dr Megan Saunders** (CSIRO). My research focuses on coastal wetland restoration, with my initial chapter exploring blue carbon restoration opportunities for the Noosa Council.

I am assessing not only the carbon sequestration benefits but also the additional co-benefits of a blue carbon project, including biodiversity conservation (especially for threatened species), improvements in water quality, support for fisheries, coastal protection, and estimating the carbon abatement of a restoration project to aid Noosa in achieving net-zero emission targets.

As an HDR Representative of the CBCS Management Committee, I am privileged to be part of a vibrant community of exceptional scientists. Anticipating the exciting year ahead, I am enthusiastic about making connections and ensuring that HDR students feel connected to this wonderful community.



Images The path ahead. Credit (top right): Australian Rowing Team.

About CBCS

The Centre for Biodiversity and Conservation Science (CBCS) is a world-leading solution-oriented research centre for biodiversity conservation.

Based at The University of Queensland (UQ) in Brisbane, Australia, CBCS works in partnership with scientists, governments, non-governmental organisations and industry to help solve the most important conservation problems around the world.

Contact

Associate Professor Daniel Dunn
Director

E daniel.dunn@uq.edu.au

Kate Donnelly CBCS News Editor

E cbcs-info@uq.edu.au

T +61 7 334 60879

cbcs.centre.uq.edu.au