

CBCS NEWS

A quarterly newsletter
Issue 19 — Spring 2024



Matthew Holden and Brooke Williams: 2024 Young Tall Poppies

CBCS researcher Dr Matthew Holden and recent CBCS alum Dr Brooke Williams have been named 2024 Young Tall Poppy finalists for Queensland.

Led by the Australian Institute of Policy and Science, the Young Tall Poppy Awards celebrate accomplished Australian scientists across each state and territory who are at the forefront of research in their fields and demonstrate commitment to promoting science to the broader community.

Matt and Brooke received their honours at an awards ceremony held on the evening of Thursday 15 August at QUT's Gardens Point campus, as part of National Science Week (10-18 August 2024) activities in Queensland. There they joined 14 other finalists representing excellence in science in Queensland across many fields.

Image Drs Brooke Williams and Matt Holden with their Young Tall Poppy Awards at the ceremony, Thursday 15 August 2024.
Image credit: Office of the Queensland Chief Scientist

Matt: maths as my pathway back to nature

Matt is a lecturer and ARC DECRA Fellow in the School of Mathematics and Physics and also serves on the CBCS Management Committee as the Deputy Director – Research.

Matt says of his work and career journey:

“As a toddler, I grabbed a wasp ... ouch! Immediately, I was terrified by nature.

“My introduction to mathematics wasn’t much better.

“I was scolded for developing my own methods of solving problems – methods that often failed. But at university, mathematicians embraced creativity and failure. I was hooked, and unexpectedly, mathematics was my pathway back to nature.

“I wanted to use maths for good and noticed there were heated debates between environmental scientists about how to solve the world’s greatest challenges. Should agriculture be organic? Or should we farm intensely over as little area as possible - saving more forest, where species thrive? Do fishing regulations protect marine wildlife?

Or do we need areas with no fishing? At the heart of these questions are trade-offs. We need food, shelter, and products to live, but we also want to protect the environment. My research helps identify strategies that meet people’s needs while maximising environmental benefits. I do this by stripping environmental problems down to their most essential components and using mathematics to reveal fundamental principles of effective environmental management.

The maths helps explain why some strategies work better than others so we can learn and adapt to new challenges.”

Brooke: informing conservation decision-making

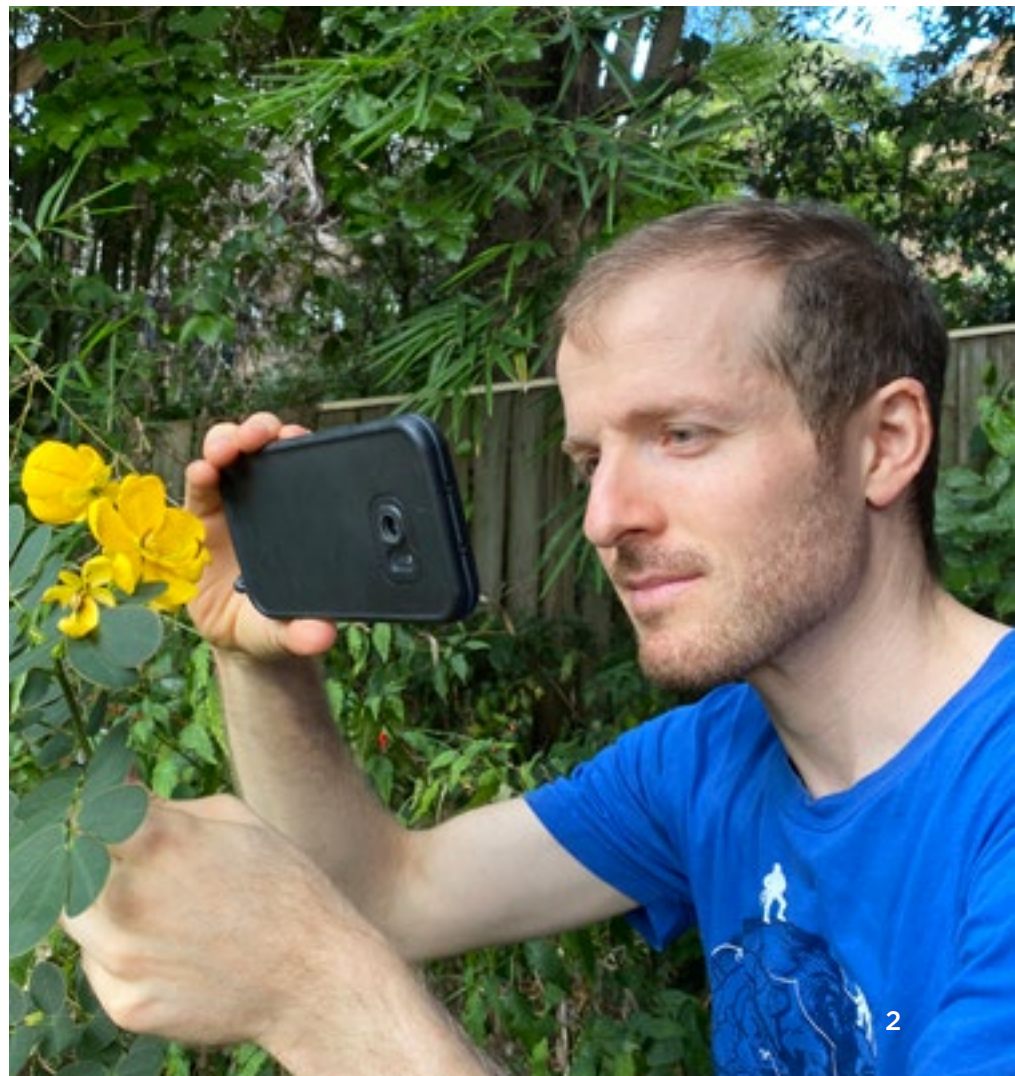
Brooke recently joined Queensland University of Technology in a new role but says “all the research and work I did to get this award was through CBCS”. She is continuing her affiliation with CBCS through an Honorary appointment.

She says of her project, “We are currently faced with unprecedented environmental challenges, including biodiversity loss and climate change, which negatively impact human wellbeing.

In response, nations have come together to commit to global policies and participate in environmental markets aimed at addressing these issues. However, translating broadscale policies and frameworks to the local level comes with a range of often unexpected challenges. These can include a mismatch between expected and realised outcomes, agricultural displacement (land use practices are moved out of their original location to somewhere else), and unequal costs and benefits to people.”

Brooke is using spatial information on biodiversity, ecosystem services (the benefits people derive from nature, such as carbon sequestration) and human activities to develop innovative tools and metrics to better inform decision-makers on the outcomes of broadscale environmental policies and markets. Her research directly contributes to improving global biodiversity conservation and climate change mitigation outcomes.

The Queensland awards are a joint initiative with the **Office of the Queensland Chief Scientist**.



Images (left to right) Young Tall Poppy finalists for Queensland, Dr Brooke Williams (Image credit: Anthony Weate) and Dr Matthew Holden (Image credit: Matthew Holden)

PROFILE

From the concrete jungle to the actual jungle: a journey through conservation

Dr Tom Bruce 

CBCS and WildObs Postdoctoral Research Fellow

My career has given me the privilege of studying and working in some of the most far-flung corners of Earth.

From galloping on horseback in search of Przewalski's horse (*Equus ferus przewalskii*) in the grasslands of Mongolia – to swimming after whale sharks (*Rhincodon typus*) at Mafia Island in Tanzania – and, finally, leading surveys to monitor western lowland gorilla (*Gorilla gorilla gorilla*) populations in the rainforests of the Congo Basin. Then, following my interests in rainforests and predators, I came to Australia to do my PhD on feral cats (*Felis catus*) in the Australian Wet Tropics. I've now settled in at CBCS as a quantitative ecologist building the Wildlife Observatory of Australia. But my life of tracking "wildlife" starts in the streets...

Getting out of the (literal) rat race

At 22, I was strolling through London with a load of rodenticide strapped to my back en route to another pest control inspection. Catching rats was my first choice after finishing my undergrad, and it certainly had nothing to do with the rejection of my first Master's application...

While this job allowed me to be outside, solve problems, and get into strange situations (rooftop pigeon-trapping during a fashion modelling photo shoot springs to mind), I had larger ambitions and my eyes cast across the seas...

A steppe in the right direction

A chance application during the first year of my undergraduate degree initiated me into field ecology and conservation. The Zoological Society of London (ZSL)'s Steppe Forward program allowed five undergraduates to attend a field course in Hustai National Park, Mongolia. I loved the weeks living in yurts and learning how to conduct biological surveys. I learned about making pitfalls for insects (sadly outperformed by our communal hand-dug latrine!), deploying camera traps with hopes set on finding Mongolian wolves (*Canis lupus mimonax*), and conducting horseback transects for ungulate density. It was the conservationists I met who ultimately had the greatest influence on me. The course leader, Rajan Amin, became a friend and a mentor, ultimately co-supervising my PhD a decade later.



Images (top to bottom) Tom and Constant Ndjassi setting camera traps for mammals in the Dja Faunal Reserve. Credit: Adam Finch – Zoological Society of London.

Dr Big (Tom means big in Mongolian) riding transects on what felt like the world's smallest horse. Credit: Tom Bruce.



Into the heart of darkness

I reapplied and got into my preferred Master’s course in Wild Animal Biology run by the Royal Veterinary College and ZSL. Here, I got my first exposure to analysing camera trap data, carrying out my final project identifying animals and modelling their abundance from the Arabuko Sokoke forest in Kenya. My first trip to Africa was as a Terrestrial Research Officer for a gap-year organisation on the small island of Mafia, off the coast of Tanzania. This was a mixed experience, as the opportunity to go out daily, carry out bird surveys, see giant forest sengis (*Rhynchocyon* sp.) running around the bush, and try and get footage of that famous terrestrial animal, the whale shark, was irreplaceable. However, the downsides included realising that not every organisation in conservation is there for the greater good and that profit margins are something they consider.

I then returned to London and took on a role as an intern with the ZSL Africa team, managing camera datasets from the largest desert in the world, the Empty Quarter in Saudi Arabia.

However, I progressed to helping the Cameroon team manage their latest surveys from a location that would soon become familiar to me, the Dja Faunal Reserve. When this contract finished, I feared I would struggle to get into a full-time conservation role but, at this point, another influential figure would enter: David Olson.

I met David, the Cameroon country manager, at the ZSL Annual General Meeting, and a long evening followed, discussing, among other things, one of our favourite topics: how to help baby elephants. He decided he liked the cut of my jib and offered me the opportunity to come to Cameroon to not only carry out camera trap surveys but also expand my skill set to the practical application of line transects and distance sampling across an entire reserve, coordinating several teams to simultaneously survey great ape and forest elephant (*Loxodonta cyclotis*) populations.

My time in Cameroon allowed me to understand what I enjoy about working in conservation, and that is building capacity within my colleagues and designing and executing conservation projects with tangible outcomes.

I am proud to have had the opportunity to train and empower others who call that country home to carry out surveys that would ultimately benefit wildlife conservation for species like central chimpanzees (*Pan troglodytes troglodytes*), western lowland gorillas and forest elephants in a longer-lasting way than my presence there ever could. From a personal perspective, another highlight was getting one of the first confirmed records of the African golden cat (*Caracal aurata*) in the Dja Faunal reserve from a camera trap survey that we carried out.



Images (left to right) Andrew Fowler, Tom and his “grande frère” Constant Ndjassi while delivering a training session for elephant dung and great ape nest identification and ageing. Credit: Adam Finch – Zoological Society of London. Central chimpanzee. Credit: Adam Finch – Zoological Society of London.

What I enjoy about working in conservation is building capacity within my colleagues and designing and executing conservation projects with tangible outcomes.



Images (left to right) Tom and lab mate Lily Leahy setting cameras in Wooroonooran National Park in Queensland. Credit: Tom Bruce.

Matthew Luskin, Tom, Zoë Lieb, I-Fang Sun, and Chia-Hao Chang-Yang in the stunted typhoon rainforests of Fushan, Taiwan. Credit: Matthew Luskin.



“Bart, don’t make fun of grad students. They just made a terrible life choice”

I chose to continue my interest in rainforests, predators and ecology on a new continent, Australia, when I came to James Cook University for my PhD on feral cat ecology in the Australian Wet Tropics. This still fed into what I enjoy about conservation, which is applied projects, where I showed that, contrary to some opinions, cats are present in rainforests in Australia, and provided the first steps in recommendations for managing their populations in these complex, food-rich environments.

It also allowed me to indulge my inner Wile E. Coyote, building my own net-launching contraption using pressurised air and watching a road from a hide using a thermal monocular. Unsurprisingly, it did not catch anything.

The cats out of the bag

It was a combination of my experiences in the Congo Basin and with predators and camera-trapping that brought me to The University of Queensland. I first talked to **Dr Matthew Luskin** when he asked how his PhD student (**Bastien Dehaut**) might go about catching duikers (a forest antelope) for a GPS collaring study. Matthew didn’t take my advice, and he and Bastien spent a month without catching more than a single duiker. The next time I talked to Matthew, he offered me a job to co-found and build the **Wildlife Observatory of Australia** (WildObs) with seed funding from CBCS. My move to UQ and involvement with CBCS have provided my first sense of an academic conservation community, and I am embracing it. My role at WildObs allows me to use skills I have picked up at each of my career stages and adventures.

This is especially true in how I work with a variety of people to build a research network. I’m able to develop tools and analyses to benefit other researchers and ultimately deliver projects with tangible conservation outcomes.

The WildObs approach to collaboration and data-sharing will enable continental-scale wildlife modelling. I’m excited about the research questions and impact that this will deliver. For example, my first project will examine whether and how dingoes (*Canis lupus dingo*) influence fox (*Vulpes vulpes*) and cat populations, and whether this varies across Australia’s diverse ecosystems. Those results will enable managers to implement conservation strategies to reduce invasive predator impacts on native Australian fauna.

I’m excited about the research questions and impact that WildObs will deliver.



Image credit: created with AI by Shu Chen

CBCS Small Grants Scheme 2024: outcomes announced

Samantha Wong-Topp 

CBCS MPhil candidate and Communications Officer

Each year CBCS invites applications for our Small Grants Scheme, which aims to promote research collaboration, inclusion, mentorship, leadership and teamwork for biodiversity conservation. The grants are open to applicants of all career levels who are working on conservation at UQ, and this year the scheme has prioritised proposals which initiate new external partnerships between CBCS members and government, NGOs or industry.

“The Small Grants Scheme is the heart of the Centre for Biodiversity and Conservation Science. It’s where the seeds that are planted in coffee chats and social hours are allowed to germinate and grow”, says CBCS Director, Associate Professor Daniel Dunn. “[It] is meant to be an idea incubator that supports initial efforts to flesh out an idea and develop it into proposals, publications or larger programs. It’s also meant to increase collaboration across CBCS and with industry (including NGOs and government) to encourage the development of cross-disciplinary solutions to challenging biodiversity problems.”

This year we had four successful applicants, all of whom are making novel and notable contributions to conservation science. “This year’s winners are taking traditional CBCS issues in novel directions (e.g., incorporating international agreements into spatial prioritisation of migratory birds, or spatial prioritisation of spotted quolls under climate change), engaging industry (e.g., Brisbane airport) to understand how to make critical infrastructure more wildlife-friendly, and better understanding the conservation status of vulnerable taxonomic groups (invertebrates). We look forward to seeing how these projects progress, and to running the Small Grants Scheme again in Q1 2025!”, Daniel says.

The Small Grants Scheme is an idea incubator.

Learn more about the awarded projects below.

Flight forward: navigating the path to wildlife-aviation coexistence – using Brisbane Airport as an example

Project leads: Shu Chen and Nga-Yee Lai

“Birds mastered the skies long before planes ever took flight. Inspired by them, we now traverse the heavens. Yet, in modern aviation, these original aviators are often seen as hazards”, Shu Chen says. “Our project, focusing on Brisbane Airport, aims to shift this conflict towards collaboration by fostering dialogue between the conservation sector and the aviation industry. Through a panel discussion between CBCS and aviation practitioners, followed by a site visit to the airport, we are exploring ways to promote wildlife-aviation coexistence through science and practice”.

Global spatial prioritisation of migratory bird connectivity

Project lead: Marina Corella Tor

“My project ‘Global Spatial Prioritisation of Migratory Bird Connectivity’ aims to bring together industry and academia to tackle one of the main challenges in the conservation of migratory bird species: the coordination of management across international borders. Together, we’ll develop a spatial prioritisation that incorporates: (1) a global list of International Environmental Agreements focusing on migratory birds; (2) the number of shared migratory bird species between pairs of countries; (3) the IUCN Red List status of such species; as well as (4) the potential for bilateral collaboration between pairs of countries as a measure of cost. We believe that this will enable the development of specific, practical and easy-to-understand conservation strategies, targeting governments, NGOs and already established International Environmental Agreements focusing on migratory birds worldwide”, says Marina.

The application of the IUCN Red List criteria to invertebrates

Project lead: James Tweed

“For this project we’re collaborating with a diverse range of organisations to complete the first coordinated extinction risk assessment of Norfolk Island’s endemic invertebrates. This will help to set a baseline for the conservation of these unique species. We’re also aiming to provide an opportunity for workshop participants and other CBCS members to develop species threat assessment skills by receiving expert training”, says James.

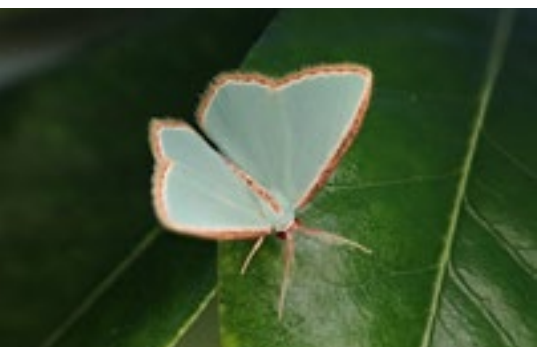
Spatial prioritisation of the spotted-tail quoll under future climate change

Project lead: Lamuel C.H. Chung

“The spotted-tail quoll’s extensive home range crosses multiple land tenure and government boundaries, necessitating coordinated conservation efforts among various stakeholders. This workshop aims to unite experts and researchers from different sectors to foster collaboration and collective action for this vulnerable marsupial. Key objectives include promoting standardised data-sharing frameworks and enhancing spatial modelling. Additionally, a discussion session with policy-makers will be dedicated to bridge up research and practical decision-making for spatial prioritisation”, says Lamuel.



The scheme encourages the development of cross-disciplinary solutions to challenging biodiversity problems.




Images (counter clockwise from top left) Credit: illustration by Joshua Wilson.

Comostola pyrrhogona subcrenulata. Credit: James Tweed.

Spotted-tail quoll. Credit: Gary Cranitch © Queensland Museum Kurilpa.

Fieldwork in the Australian Wet Tropics: a personal reflection

Skye Anderson 
CBCS PhD candidate

Cassowaries are incredibly ecologically important to rainforests, yet there is very little robust information on how they relate to their environment. PhD candidate Skye Anderson aims to examine how multiple concurrent threats such as habitat fragmentation and invasive species impact cassowary population dynamics, behaviour and distribution.

“As cassowary habitat is increasingly encroached on by human modified areas, their role as seed dispersers supporting plant diversity and rainforest regeneration may change”, Skye says. “They will also be more exposed to threats from humans such as dog attacks and road accidents. The camera trap surveys we are conducting in Paluma National Park with Wren and Jim allow us to investigate the edges of their habitat and understand how cassowaries are utilising these highly modified areas.”

Here, Skye tells us more about her first fieldwork experience in the Australian Wet Tropics.

The field work was amazing; it was my first experience doing fieldwork in the Australian Wet Tropics! I flew up to Townsville and was picked up at the airport by Wren Mclean, who I've been collaborating with on cassowary studies. Wren did her Honours project on cassowaries, and she has been very involved for many years in projects throughout the Wet Tropics to study their populations. Jim Tait also came along for this field trip; he is the technical assistant, and he owns a property in Rollingstone, which is 45 minutes north of Townsville and backs onto Paluma National Park.

Townsville/Paluma is the very southern extent of cassowary range and Wren wants to bring attention to the population that is present in this area. She has been collecting historical sightings and

documented sightings from eBird and other online resources to try and get an idea of cassowary presence. For the past year, Wren and Jim have been setting cameras in Paluma National Park to document the presence of cassowaries – and they have been seeing cassowaries turn up on their game camera images! The aim of my trip was to set cameras in the edge habitats of Paluma National Park to determine whether cassowaries are using the narrow riparian corridors to access lowland rainforest where there are abundant resources for them (fruiting trees, wetlands). Wren and Jim want to find out whether the population of cassowaries in Paluma are a disjunct population from the northern extent of the Wet Tropics and if they are moving into the lowland areas that have been heavily modified and are populated by people.



Our first day of fieldwork

The first day, we drove through a pineapple plantation to arrive at the start of our hiking track. We spent a full day rock-hopping up rivers and traversing thick rainforest and deploying game cameras along the way. We chose areas that looked like natural conduits of movement for animals, were near water sources and had many fruit resources that would attract a cassowary. Wren was using “bait balls” along with her game camera deployments. She had wooden balls that were painted red and blue that she wired around trees and pointed the camera at in the hopes it would attract a foraging cassowary. I was also deploying cameras I had brought with me but mine were not baited. This will provide another interesting question we can look at in terms of the difference in animal detections when deploying baited versus not-baited cameras.

The field work was amazing; it was my first experience doing fieldwork in the Australian Wet Tropics!

Images (top to bottom) PhD candidate Skye Anderson deploying cameras in the edge habitats of Paluma National Park. Image credit: Wren Mclean.

Wren Mclean (left) and Skye Anderson. Image credit: Jim Tait.



A run-in with the iconic stinging tree

The forest was teeming with fleshy fruiting trees that Wren and Jim pointed out along the way, such as blue quandongs and black sapote, otherwise known as the chocolate pudding fruit. I also had my first up-close encounter with the stinging tree. I spotted it because it had a cluster of beautiful purple raspberry-looking fruits. Luckily, I recognised the distinctive heart-shaped leaves and Jim confirmed my identification of the stinging tree, so I kept my distance. Despite Jim assuring me you could wash the berries thoroughly enough to remove the stingers, I assured him I would not be attempting that process. We camped by the side of the river at a deep swimming hole where we could refresh ourselves after a long, sweaty day of walking.

Jim also caught us a fish from the river that we roasted over our campfire for dinner. Although we never saw any cassowaries during the field work, we did find a scat along one of our trails that Wren identified as a cassowary scat. It was old and had been disturbed by rodents and weather but there was the tell-tale sign of whole fruit seeds intact in the scat.

Other wildlife we saw along the way were a big black snake that slithered across the path in front of me, many different spiders of all shapes and sizes, noisy pittas, topknot pigeons, king parrots, white-throated nightjars, cockatoos and many other unidentifiable bird species. Another highlight were the numerous gigantic fig trees we saw in the forest. The sheer size and intricacy of their shapes takes your breath away!

I will be returning to collect the game cameras I deployed in a few months, and I look forward to seeing what critters may have passed by. Wren and I will continue to collaborate to answer questions of how cassowaries are moving through Paluma National Park and about cassowary occupancy, habitat associations and key threats throughout their entire range.



Image Skye's first encounter with a stinging tree. Image credit: Skye Anderson.

The forest was teeming with fleshy fruiting trees.

HDRs RQ2 pizza night at Saint Lucy's

Harrah Friedlander

CBCS PhD candidate and HDR Representative – Community

The CBCS HDR night at Saint Lucy's for Research Quarter 2 was a huge success!

We had new Honours students and visiting HDRs through to final research quarter PhD students and PhD pups sharing experiences, pizza and drinks (no drinks for the dogs, and only a little pizza).


It was fantastic to see UQ CBCS "old hands" welcoming the newer faces, and even people who have been here a while but seated in different buildings meet each other for the first time. HDRs were excited to share their research ideas and plans, but also we just had fun talking about everything outside of academia as well.



Images (left to right) Left to right: Shu Chen, Alvise Dabalà, Amelie Reitmayer behind Maddy Dyring's back, Angle Lin, Brodie Crouch, Rio Button, (with Tom Lloyd behind), Ilyas Nursamsi. Credit: Harrah Friedlander.

Left to right: Max, Aidan Carpenter, Jennifer Bruyn, Maddi Brown. Credit: Harrah Friedlander.

Noosa writing retreat reflections

Brodie Crouch 
CBCS PhD candidate

During mid-July, Martine Maron's and April Reside's labs came together to enjoy a three-day writing retreat at Noosa North Shore. A ferry ride across the Noosa River brought us to our accommodation set among paperbark forests and eucalypt woodland, just a two-minute drive from the beach!

Over the course of the three days, we enjoyed workshops facilitated by Martine, April and Hannah Fraser. The workshops looked at topics including communicating research to general audiences, writing tips for research articles and "perfecting your pitch", where we all refined and practised our elevator pitch, so we could feel a bit more confident the next time someone asks, "What do you do?"

Developing skills

These workshops certainly left me feeling that I had the tools to make my writing time more productive, and the confidence to communicate findings to a whole range of different audiences. As someone just starting out on their PhD, it was also very useful to understand the process behind getting your research published in different media, including journals and *The Conversation*.

So, to put these new-found tools to the test, "shut up and write" sessions were interspersed among the workshops, filling the room with the sound of concentrated work and making you switch on! After the writing sessions, we would pass on our work for immediate feedback. The aim of this was to break the habit of trying to perfect your draft before asking for feedback ... and it is certainly a lot easier to modify your draft when it's only a couple of paragraphs outlining what you plan to write about!

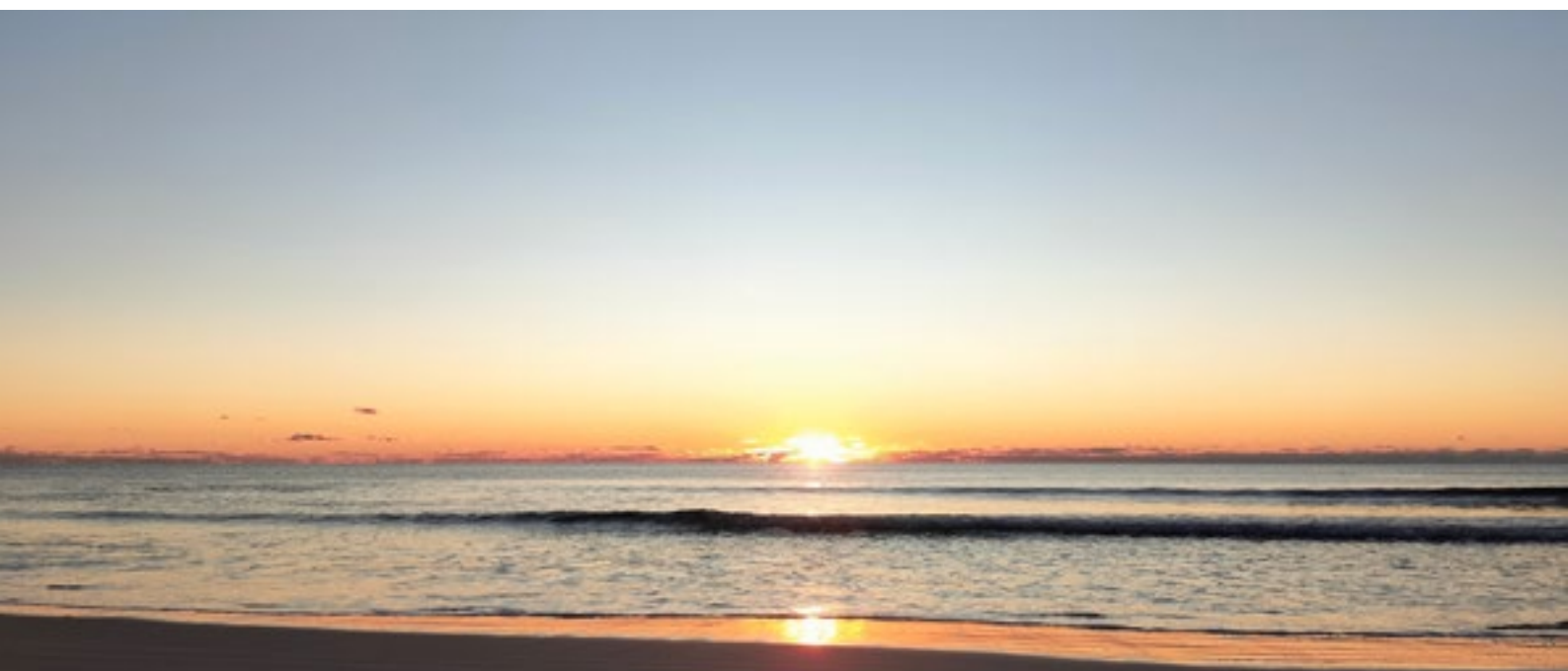
And firming friendships

A productive day's writing needs a good way to reset, and the Noosa North Shore location delivered this in spades. Sunrise and sunset beach walks, swimming in crystal clear water, a bit of birdwatching (dusky honeyeaters being a highlight) and evenings spent cooking and chatting helped establish new friendships and strengthen existing ones among the lab groups and made for a very enjoyable writing retreat.

It is experiences like these that make for a productive and friendly working environment in lab groups, where everyone knows what everyone else is working on, who we might ask for advice and who really doesn't care that the State of Origin decider is on the telly! We couldn't recommend it enough! Thank you to Martine, April and Kate for bringing it together.

Experiences like these make for a productive and friendly working environment in lab groups.

Image Sunrise over the beach ... not a bad way to kick off a day's writing! Photo credit: Brodie Crouch.





Images (left to right, top to bottom) The two Hannahs (Fraser, left, and Thomas) enjoy the gado gado prepared by Karlina Indraswari. Photo credit: Martine Maron.
 There was a good spread of food, including Indonesian gado gado and southern African braai broodjies. Photo credit: Martine Maron.
 April delivers a workshop on writing productivity. Photo credit: Martine Maron.
 Everyone enjoying their dinner around the table, sharing stories. Photo credit: Martine Maron.
 The two lab groups were all smiles after a morning bird walk. Photo credit: April Reside.



Images (left to right) Tiny (the juvenile yellow-spotted monitor, *Varanus panoptes*). Image credit: April Reside.
One of our industrious pardalotes. Image credit: Eric Vanderduys.

The pardalotes under my house

Of all the things my partner and I insured our house against, excavation of the foundations by native vertebrates didn't feature.



Dr April Reside 
CBCS Lecturer

Luckily in south-east Queensland we are not contending with the muscle of wombats, but we have been quite enamoured with the juvenile yellow-spotted monitor, *Varanus panoptes* ("Tiny"), and striated pardalotes, *Pardalotus striatus* ("Garden" and "Pardy"), who have dug into the dirt directly underneath our veranda.

Unfortunately, due to the proximity of both, we live in fear that Tiny will wake from his wintery slumber for a convenient meal of pardalote chicks (possibly the fate of the last nesting attempt by Garden and Pardy). Our two pardalotes have been industriously carrying nesting material into their tiny burrow, with little concern for us watching on nearby. Research from our own CBCS has shown that our daily proximity to nature has enormous mental and physical health benefits, and we are so lucky to have our menagerie around us. Stay tuned for the next iteration of the telenovela unfolding under our house...

Image One of our industrious pardalotes.
Image credit: Eric Vanderduys.



Martine Maron builds offsets skills in Mozambique

CBCS’s Professor Martine Maron was invited to the Mozambique capital of Maputo in June to deliver training in estimating biodiversity losses and gains for the implementation of biodiversity offsets.

Martine’s invitation came from the COMBO+ Program, which is led by the Wildlife Conservation Society and works across Mozambique, Guinea, Uganda, Madagascar, Myanmar and Laos to help integrate the mitigation hierarchy into development planning. Mozambique partners are WCS-Mozambique, the Foundation for the Conservation of Biodiversity and the National Directorate of Environment from the Ministry of Land and Environment.

The training focused on building capacity in the development of species and ecosystem metrics for estimating biodiversity losses and gains to implement biodiversity offsets. Over two days, Martine worked with 47 technicians from the National Directorate of Environment Biodiversity Offset Assessment and Monitoring Office, representatives from the Environmental Impact Assessment Technical Commission, environmental consultants, academic researchers and members of the environment departments of large development projects.

The COMBO+ Program has worked in Mozambique since 2021 to improve policy and build capacity among all actors involved in the implementation of biodiversity offsets and the mitigation hierarchy in Mozambique.



Images (top to bottom) Workshop participants in Maputo, June 2024

PROFILE

From China's elephants to Australia's koalas: a journey of passion, people and engagement

Shu Chen 

CBCS PhD candidate and HDR Representative - Engagement and Community

The start: Who I was

Since childhood, I've often asked myself: Who am I and who do I want to be? Growing up in Yunnan Province, Southwest China – the so-called “kingdom of flora and fauna” and “hometown of China's elephants” – I dreamed of working with wildlife. This passion led me to study biology for my undergraduate degree and biodiversity conservation for my Master's in Singapore, another incredibly biodiverse region.

Driven by my fascination with charismatic large mammals, I embarked on my career focusing on the Asian elephant. Picture this: a passionate local girl from Yunnan working hard to save China's last 300 Asian elephants. However, I soon realised that while the public often sees elephants as “cute”, “gentle” and “intelligent”, the communities living with them experience anger and fear.

Angry or frightened farmers might shoot an elephant. Did you know that more than 600 humans and 450 elephants die annually due to these conflicts in Asia? To save elephants, we need to protect people. It's not just about crops; it's about the lives of both elephants and people.

This revelation led me to wonder who I wanted to be if I aimed to save elephants. I then started my first job with an international NGO, working hands-on with communities and protected areas. Over 10 years, my NGO experience exposed me to various other conservation issues, from wildlife trade and unsustainable farming to linear infrastructure and climate change. These challenges were often depressing, making me feel that my efforts were just a drop in the ocean. Perhaps this is why we now have the Conservation Optimism conference!

Embracing collaboration and new ideas: What I've learned

But there is always hope! What I've learned is that conservation should go beyond conservationists, and the future of conservation lies in engagement – engaging and inspiring people by telling good stories.

We've traditionally favoured “educating people” by presenting information solely from a conservation perspective. However, stating facts like “75% of vertebrate species have gone extinct” or “the koala is endangered” might not resonate with everyone.



To save elephants, we need to protect people. It's not just about crops; it's about the lives of both elephants and people.

Image Shu's Australian life with her dog Mulan. Photo credit: Shu Chen





Images (left to right) Shu with her interviewees, a New South Wales landholder couple who adopted a conservation covenant. Photo credit: Shu Chen

Shu doing stakeholder engagement on a visit to a landholder property with land for wildlife officers from 11 south-east Queensland councils. Photo credit: Deborah Metters

I began exploring ways to tell conservation stories by connecting with people outside the conservation community and igniting their passion for conservation through their own interests.

Engaging people in conservation stories has been incredibly rewarding (and fun)! People love beer, right? (At CBCS we definitely do!) I partnered with breweries to create a Snow Leopard IPA, receiving a donation of 5,000 bottles. People love music, so I collaborated with composers to hold a wildlife-themed concert. People love arts, so I worked with jewellery designers to create a cute pin featuring the Yangtze finless porpoise. Sometimes I'm amazed at my own networking skills to get talented people to work for free! Conservation is a compelling story itself.

What we need more of is empowerment. By telling a good story and inspiring people, you can channel their talents to contribute in meaningful ways. The results can be astonishing.

A new chapter in communication: Who I am now

You may wonder, as I often do: Is what I've done enough to inspire people to act for conservation? Perhaps we've only reached those already inclined to care but still need to tackle the core issues and engage those who bear the costs of conservation or have yet to join our cause. The future of conservation hinges on collaboration – cross-sectoral collaboration with individuals who may think differently from us.

To truly understand how to win people over, we need to ask ourselves: What do farmers need to coexist with elephants? What drives consumers to buy pangolin products? Why do road agencies decide to build a 100km highway through a national park? Understanding these questions requires exploring different priorities, perceptions, motivations, values and social influences.

This introspection led me to return to university to pursue my current PhD at UQ, not in the School of Environment but in the School of Communication.

I hope to bring different disciplines together and provide better scientific evidence for effective conservation action. This is a whole new world for me. I am slowly digesting social-psychological theories and their terminologies to understand what shapes people's decision-making processes.

I am also fortunate to work on another charismatic species for my PhD: koalas! Who wouldn't want to be involved in that? Beyond koalas, I am working with people – landholders, councils, and state governments – to understand what communication can motivate private land conservation actions. Given my love for making friends and networking, this seems like a perfect fit for my skills.

The future of conservation hinges on collaboration – cross-sectional collaboration with individuals who may think differently from us.

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