





The past couple of years have seen major changes for WildCRU. The Unit's Founder and original Director, Professor David Macdonald, who has led the group for nearly 40 years, stepped aside as the Director at the start of 2022. From before my undergraduate years I knew about and deeply admired David and WildCRU, so it was an immense (though daunting) privilege to be asked to take over the Directorship. David remains an invaluable member of the group and is working as hard as ever, focusing on building up our Eurasian Felid programme which spans much of the globe, from Scotland to Sumatra, achieving ever greater scientific and conservation impacts.

The change in leadership meant it was a good time to reassess WildCRU's mission and research portfolio. Our updated mission - to transform wildlife conservation through worldclass research, training and implementation - reflects the fact that we have grown over the decades into a unit which has great strengths in practical conservation as well as academic excellence. Science and conservation action are deeply entwined within our DNA, with each informing the other to understand and tackle some of the most challenging issues facing biodiversity today. WildCRU's international strengths in conservation action have increasingly been recognised within the University and - most importantly - far beyond it, in the places where wildlife and people are under great pressure.

While much has changed recently, our core principles have stayed the same. It remains as true as ever that WildCRU's real strength lies not in its academic reputation, but in the wonderful, committed team that comprise it. We are honoured to have so many incredible members, including our students who are committed to cutting-edge studies, our early career and senior researchers who offer invaluable mentorship and experience, our fantastic support staff who keep everything running, our research associates who strengthen us from across the globe, and our dogs, who regularly brighten up the office! None of our work would be possible without support from the Biology Department, colleges (particularly LMH and Pembroke), the wider University and our funders. We are so thrilled to work with all of you, and we hope that this Impact Report will give you some insights into what we are doing to advance conservation science and most importantly, use that to inform and drive practical conservation action around the world.

Thank you all!



Science and conservation action are deeply entwined within our DNA, with each informing the other to understand and tackle some of the most challenging issues facing biodiversity today.

Prof Amy Dickman

WildCRU Director



Part of the University of Oxford's Department of Biology, WildCRU's mission is **to transform wildlife conservation through world-class research, training and implementation**. Our approach is **evidence-based, interdisciplinary** and **collaborative**. Evaluating and tracking our **conservation impact** is integral to our work.



Founded in 1986, WildCRU was the first universitybased conservation research unit in Europe. Today we are recognised as a world leader in our field, playing a vital role in tackling the world's biodiversity crisis by combining conservation research with action. Our work underpins conservation strategy, informs project implementation and supports policy change at local and international levels.

Our members originate from more than forty countries and our work spans multiple continents, with the overarching aim of delivering positive local impacts for both people and wildlife. We take a joined-up approach, based around collaboration and partnerships, and ensure that our work is flexible and locally adaptable so we can best identify and address key unmet needs in conservation.

As of 2023, **121 conservationists** from 48 countries have completed the WildCRU diploma and over 160 conservation scientists have been trained to doctoral level.

WildCRU is **currently involved in over 50 conservation initiatives** at national, regional and global levels.







Zimbabwe

Conservation Programme Ethiopia



Nepal, China

Global

Mali, Senegal, Sudan



As scientists, we take a data-driven approach to developing and implementing effective conservation solutions. Our research covers a wealth of topics, species and landscapes, reflecting the breadth of conservation challenges faced across the world. Despite this diversity of projects and contexts, nine key research themes frame all our work.

9 WILDCRU RESEARCH THEMES

Changing landscapes Informing and developing conservation strategies under dynamic conditions.

Essential knowledge Discovering and sharing crucial information to underpin conservation.

Conflict and coexistence Researching, understanding and helping reduce human-wildlife conflict.

Incentivising conservation Exploring both financial and non-financial ways to support conservation.

Health, welfare & ethics Considering how conservation can be ethical, humane and improve outcomes for people and wildlife.

Wildlife use & misuse Assessing the dynamics and impacts of wildlife use to help foster sustainability.

Controversial conservation Understanding diverse perspectives and sharing evidence to inform decisions.

Conservation recovery Investigating ecological and social issues to support species and ecosystem recovery.

Communicating conservation Using evidence based communication to drive

Using evidence based communication to drive behavioural and societal change.

WildCRU authors published over 100 academic papers in 2023. WildCRU research staff and students presented over 60 talks and posters at academic conferences during the year.



WildCRU's core research draws on a wide range of natural science disciplines, including ecology, behaviour, epidemiology, genetics, parasitology, biochemistry and physiology. Given the multifaceted and human-centred nature of conservation, our research also involves other disciplines such as spatial analysis and modelling, economics and social sciences. Our research increasingly address issues such as human-wildlife conflict, drivers of wildlife consumption and the impacts of climate change.

Our research is deliberately empirical, aimed at generating data through experimentation and observation. This integrated approach provides the necessary expertise for developing workable conservation solutions.

WildCRU employed our first ever dedicated communications staff member in 2023, helping bring our research to a larger, more diverse audience.



Selected WildCRU research communications in 2023





WildCRU trains and supports the professional development of conservation scientists and practitioners around the world. This is always a two-way process, in which we learn from the experience and insight of students, trainers, research and conservation partners, community members and alumni.

As part of a world-renowned university, learning and training are central to WildCRU's core, ranging from Masters and PhD students enrolled at Oxford, co-supervised students who spend a period of time working with WildCRU, Diploma students looking to build on their professional experience and a multitude of participants who benefit from practical training conducted by WildCRU's programmes around the world. WildCRU members supervise numerous students at different levels and the strong alumni network means knowledge exchange continues long beyond students' time at WildCRU. Training people from biodiversity-rich countries to counteract 'parachute conservation' is a priority for WildCRU. In 2023, progress was made in the planning of a training centre in Zimbabwe to provide practical experience on the front line of wildlife conservation.



C The Diploma has equipped me to make a meaningful impact in preserving our world's precious wildlife.

Patricia Kayula, 2023 Diploma student



WILDCRU PHD STUDENTS IN 2023



30 students were working on PhDs with WildCRU in 2023, involving research in 21 countries as well as regional and global projects.

These studies cover an array of topics with a diverse range of approaches and aims. They include exploring the ecological and social aspects of tiger conservation in Bhutan, mitigating the impacts of climate change on African wild dogs, understanding community coexistence with elephants in Sumatra, assessing the feasibility of reintroducing clouded leopards to Taiwan and developing a holistic conservation approach to protect the Lake Titicaca Grebe.

Students are working in collaboration with numerous local and international governments, academic institutions, conservation and private sector organisations. Throughout their studies, they are supported by WildCRU's diverse professional staff who represent an impressive breadth of backgrounds, skills and areas of expertise.

Inclusivity Accelerator

In 2023, WildCRU piloted an 'Inclusivity Accelerator' fund to help support a few individuals from our network of collaborators and contributors. The Accelerator has a particular focus on recognizing and safeguarding local expertise and Indigenous knowledge. Funds can be allocated to cover a variety of activities and resources which contribute significantly to conservationists' career development.

2023 awards included finance for WildCRU Diploma Alumna Leticia Benavalli to attend a crucial workshop in Brazil, and equipment for Mohammad Aliyuddin Bin Jaini in recognition of his invaluable indigenous knowledge and contribution to our field team in Sabah, Borneo. Travel and conference costs were also covered for Dr Girma Eshete from Ethiopia, Wiston Mtandamo from Tanzania, Liomba-Junior Mathe and Dr Lovemore Sibanda from Zimbabwe to attend WildCRU's international conference on Human Wildlife Conflict and Coexistence in Oxford.











WildCRU runs and supports an array of long-term programmes and smaller projects around the world. While the research questions, contexts and conservation challenges are diverse, all these efforts aim to benefit both people and wildlife in inclusive, equitable and sustainable ways.

WildCRU programmes are actively working in over 15 countries, and are rooted in collaborations with governments, local NGOs, wildlife authorities, academic institutions, private sector partners and community groups. Most have grown from wildlife research projects to more holistic and locally driven programmes addressing the complexity of conservation challenges. This ranges from alternative livelihood development to reduce pressure on natural resources, to community based environmental engagement to livestock management and incentives to reduce human-carnivore conflict. The majority are primarily staffed locally with WildCRU providing technical expertise, funding and capacity building. Key 2023 activities of WildCRU's three largest longrunning programmes are featured overleaf.

The Andean Carnivore Conservation

Programme has grown from research on the population dynamics of Andean bears to an initiative which addresses and reduces the drivers of human-bear conflict. Protecting bears protects their forest ecosystem and benefits local communities. Programme activities include support for beekeeping (which discourages forest clearance), livestock fencing and pruning fruit trees so they do not attract bears. Community members are also trained in data collection and ecosystem monitoring. More than 100 families were enrolled in the programme in 2023.







TOP: Lion lights to protect livestock enclosures in Tanzania MIDDLE: Sustainable livelihood guassa grass growing in Ethiopia BOTTOM: Predator proof cattle enclosure in Zimbabwe

LION LANDSCAPES integrates local knowledge and experience with world-class science to deliver effective large carnivore conservation.

Key initiatives in 2023 included extension of the Community Camera Trapping (CCT/CCT+) programme, which directly links wildlife conservation to tangible community benefits. Educational efforts were bolstered by over 80 scholarships and nutritional support for 1,200 students, fostering local empowerment and conservation awareness. Research and ecological surveys guided strategies, while international partnerships enhanced knowledge exchange and capacity building. These efforts exemplify Lion Landscapes' commitment to integrating community benefits with wildlife conservation, demonstrating a scalable model for coexistence between humans and wildlife.



The ETHIOPIAN WOLF CONSERVATION PROGRAMME (EWCP) is working to protect this endangered species and its rare Afroalpine habitat for the benefit of people and wildlife alike.

Activities and achievements in 2023 included supporting and partnering with Dinkenesh Ethiopia - a local NGO whose conservation objectives closely align with those of EWCP. 34 wolf packs were monitored throughout the year across 28 sites, with over 4,000 sightings recorded. 44 communities were reached by disease awareness campaigns in and around Bale Mountains National Park, where 93% of domestic dogs and 17 wolf packs were vaccinated against rabies. 175 households benefited financially from alternative livelihood projects - reducing pressure on natural resources and boosting community wellbeing.



The TRANS-KALAHARI PREDATOR

PROGRAMME (TKPP) researches landscape connectivity in the Kavango Zambezi Transfrontier Conservation Area and supports human-wildlife coexistence in high conflict areas.

In 2023, efforts to improve livestock management practices continued, including construction of 15 permanent livestock enclosures. A situational analysis to inform a new 'One Health' initiative was completed which will directly link community benefits to conservation outcomes. Wildlife monitoring included the deployment of 5 GPS collars on lions known to cause conflict. Over 2,500 community members will benefit from knowing the location of these lions. At a policy level, an MOU was signed with the Chobe Land Board supporting development of a land use planning toolkit informed by TKPP's wildlife corridor research findings.





Landscapes across the world are under increasing human pressure. This intensifies biodiversity threats such as habitat loss, land conversion and climate change. We predict and examine the impacts of these dynamics, helping inform conservation strategies in an ever-changing world.

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Examples of WildCRU's work under this research theme:

Landscape Connectivity Decision Support System

Habitat loss and fragmentation often result in an urgent need to identify and prioritise the most important areas for conservation.

WildCRU uses camera trapping and GPS collar data with cutting-edge techniques to produce connectivity models for target species and landscapes. The results are made available in user-friendly 'Decision Support Systems' for conservation planners, providing evidence to underpin the complex decisions they face in balancing the needs of people and wildlife.

In October 2023 a pilot system was presented to over 50 conservation stakeholders from the Kavango-Zambezi Transfrontier Conservation Area (KAZA). Focusing on the Zambezi Chobe Floodplain, the results of WildCRU's lion modelling and the functionality of the Decision Support System were demonstrated, revealing the identification of core areas and crucial wildlife corridors to be protected.

The KAZA secretariat gave very positive feedback on this tool for land-use and conservation planning and is keen to see the work expanded.





Identifying crucial areas of habitat for jaguar conservation

Jaguars are now only found in around half of their historic range. Populations are becoming isolated by landscape conversion making them vulnerable to disease and genetic defects.

WildCRU PhD student Guilherme Alvarenga is researching how jaguars respond to environmental changes and identifying core areas crucial to the species' survival. Using data from 172 GPS-collared jaguars - the largest dataset ever compiled on jaguar movements - he is predicting habitat suitability across the entire species' range.

Work in 2023 identified the Amazonian Rainforest and Mayan Forest as key areas and demonstrated the crucial importance of large continuous areas of wild habitat for this species to survive.

This work is invaluable in identifying priority areas for conservation efforts that will protect jaguars and other threatened species.



Communicating conservation

Evidence-based communication is essential for the integration of biodiversity concerns in global development and societal change. We study and use communication in conservation science and practice, to influence policies, social norms, attitudes and behaviours of individuals, communities and institutions.

Examples of WildCRU's work under this research theme:



Reducing the hunting of endangered sea turtles in the Maldives

The reduction of hunting pressure is key to the survival of endangered sea turtle populations in the Maldives. Understanding the motivations for hunting is thus key to conservation efforts.

WildCRU research is using social science methods, including interviews, focus groups, and surveys to gather insight from communities across the Maldives. The findings are informing social marketing interventions, including educational programs and media campaigns which include pre- and post- assessments to measure changes in attitudes and behaviours.

This work is contributing to sustainable conservation strategies that are aligned with local values, helping protect endangered sea turtle populations for generations to come.



Conservation children's books



A series of books created by WildCRU's Lion Landscapes Programme helps support communitybased conservation and illustrates how wildlife, people and healthy ecosystems can co-exist.



GOAL: To act as a knowledge broker between the behavioural sciences and those working to conserve biodiversity

Established in June 2023, the new IUCN SSC CEC Behaviour Change Task Force chose WildCRU's Diogo Verissimo as their first chair. They are working to produce best practice guidance to be used by conservation practitioners.

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Can video games inspire players to support conservation?

Mainstream video games increasingly address ecological topics. To what extent do they engage players with nature and its protection?

Despite a growing interest in the use of video games for conservation outreach, their potential is understudied and poorly understood. WildCRU PhD student Katie Blake is researching how video games could connect players to nature, and is creating an interactive database of resources on this topic. She will soon interview developers to explore the motivations, choices, and goals behind conservation-focused games. She will also test how games influence players' emotions, knowledge, concern, self-efficacy, and donation behaviours related to species and conservation efforts.

This work will have informative and practical value for conservationists, educators and game developers interested in conservation outreach.



Controversial conservation

Conservation involves and affects a diversity of people, who often have different perspectives on what is important in conservation and how it should be done. This frequently leads to highly polarised debates. Our research seeks to infuse these contentious discourses and difficult policy decisions with robust evidence.

Examples of WildCRU's work under this research theme:



Understanding diverse perspectives in conservation

Every day, conservation decisions are made that directly affect millions of people living in highbiodiversity areas. But whose voices and values get heard by decision-makers?

WildCRU's Morally Contested Conservation (MCC) team investigates how different groups think about notoriously controversial issues such as hunting, punishments for wildlife crimes, and excluding people from protected areas. A key focus is hearing perspectives from people in sub-Saharan Africa.

In 2023 the MCC team collected data on these topics from over 2,200 people living in rural Kenya, Tanzania, and Zimbabwe. The team returned later in the year to discuss findings with community members - ensuring engagement with the research and that community perspectives are accurately and sensitively conveyed to local and international decision-makers.

This work helps those affected by controversial issues to contribute to decision-making, making conservation more equitable and effective.





Informing political debates around trophy hunting

One of the most controversial topics in conservation, trophy hunting receives intense public and political attention.

In 2019, the UK Government proposed banning the importation of hunting trophies from nearly 7,000 species - reflecting public desire for conservation action. However, debates around trophy hunting tend to be emotive and polarised, and policymakers need robust evidence on the likely conservation impacts of any legislation.

During 2023, WildCRU researchers worked with colleagues to assess the impacts of trophy hunting and the proposed legislation. They found that blanket import bans risked doing more harm than good and proposed a more nuanced approach, where imports are only permitted if they have proven conservation and community benefits.

Their work informed debates in both Houses of Parliament, and they continue to engage with policy-makers in the UK and abroad to ensure any legislation helps rather than harms conservation.

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[▲] Infographic created by WildCRU to share study findings.



Not all is lost in conservation - degraded ecosystems and locally extinct species can be restored. We study the ecological and social dimensions of restoration, reintroduction, and reinforcement of species to inform appropriate strategies for conservation recovery.

Examples of WildCRU's work under this research theme:





Dusky clearwing moth Paranthrene tabiformis

Dartford warbler Curruca undata

Dusky clearwing and Dartford warbler: re-wilding success in Oxfordshire

The dusky clearwing is an unusual moth which until 2021 was thought to be extinct in the UK, and there were no records of the Dartford warbler in Oxfordshire from 2013 to 2022.

After an absence of almost a hundred years, a single male dusky clearwing was recorded in Tubney in June 2023 by long-term WildCRU collaborator Martin Townsend. In September WildCRU visiting researcher Jan Kamler recorded the call of a Dartford Warbler in a gorse patch next to the Tubney estate.

These records add to the growing list of rare and threatened species being observed in the area. On its own land, WildCRU has transformed previously sheep-grazed agricultural land into a valuable area for nature recovery. This already appears to be having positive impacts on wildlife and habitat.

WildCRU is thrilled to be nurturing conservation in its own backyard!



▲ Tubney aspen recovering - a key food plant for dusky clearwing larvae



Modelling tiger numbers and genetic diversity for translocations

Tigers require large areas to survive. Habitat loss is leading to the reduction and isolation of key populations, especially in Southeast Asia.

Small, isolated populations tend to have reduced genetic diversity - making them more vulnerable to disease and the impacts of climate change, as well as compromising fertility levels and offspring survival. Conservation efforts sometimes translocate individuals from other areas to sustain or re-establish species populations, with many variables influencing the success or failure of such initiatives.

Research led by WildCRU's Eric Ash evaluated the potential effect of tiger translocations in Thailand's Dong Phayayen-Khao Yai (DPKY) forest complex. Results showed that introduction of females resulted in higher population numbers and genetic richness compared to introduction of males. However, genetic diversity was shown to decline markedly over time unless additional individuals are introduced at regular intervals.

This work illustrates the crucial importance of monitoring and managing genetic diversity in small populations of endangered species.





Effective conservation requires a bedrock of reliable information. Our research provides that information on a diverse range of topics, including behaviour, ecology, genetics, and population status, threats and dynamics.

Examples of WildCRU's work under this research theme:



First ever Himalayan Wolf IUCN Red List assessment published

The Himalayan wolf (*Canis lupus chanco*) is an evolutionary distinct wolf lineage endemic to Central Asia, which is uniquely adapted to its high-altitude ecosystem.

Although these wolves were noticed as being distinct in the 19th century, scientific research and conservation attention has only taken shape in the last decade. Years of work, led by WildCRU's Geraldine Werhahn, finally confirmed Himalayan wolves as genetically distinct from the wider ranging Holarctic grey wolves.

The team's efforts resulted in the first ever IUCN Red List assessment for this subspecies being published in June 2023. With an estimated 2,275 – 3,792 mature individuals left in the wild and a decreasing population trend they are currently classified as Vulnerable.

This assessment compiles the latest science around the Himalayan wolf and is crucial to inform conservation planning.



IUCN Lion assessment

WildCRU research contributed to the latest IUCN lion assessment published in February 2023. The species' range has decreased ~36% over three generations.



Groundbreaking research by the Bornean Carnivore Programme

Borneo's rainforests have one the highest densities of mammalian carnivore species anywhere on earth. As predators, these animals play a significant role in their ecosystem.

WildCRU's Bornean Carnivore Programme has been studying clouded leopards and other key species for nearly 20 years. In 2023, the team successfully collared a male and female Sunda clouded leopard in the Tawau forest complex. Achieved in the same location only days apart, the unique data derived from these animals' collars will reveal new insights into the life histories of this threatened species.

Continued camera-trapping surveys in Borneo's understudied forest patches have also discovered isolated populations of the very rare flat-headed cat and Bornean ferret badger. These are both endangered and ecologically important species about which very little is known.

This work is providing vital new insight to inform conservation of rare, threatened species and their important rainforest habitat.



▲ Sunda clouded leopard collaring in Tawau forest complex

Photo © Himalayan Wolves Project



Developing humane, ethical conservation approaches, including balancing the welfare of individuals with the needs of populations, is complex. We work on topics such as agriculture, wildlife management and trade to investigate interlinkages between the health and welfare of wild animals, domestic animals and people, to inform future conservation approaches.

Examples of WildCRU's work under this research theme:



Evaluating invertebrate welfare

Attitudes to animal welfare are changing rapidly and are strongly influenced by the species and context concerned.

Animal welfare legislation in the UK focuses almost exclusively on vertebrates which, until recently, were believed to be the only animals capable of sentience and pain perception.

There is currently no requirement in the UK to consider invertebrate welfare for any intervention on farmland aimed at a conservation goal. WildCRU researchers have developed a framework to do this, using Lepidoptera as a model group. The work identified how different species are affected by various farm practices, highlighting the huge scale of the issue given the land area and numbers of individuals affected.

This work provides a framework for evaluating invertebrate welfare and highlights ethical issues for conservation policy.

Mitigating human impacts on wild animal welfare



In 2023 Professor David Macdonald published a commentary reflecting 50 years of WildCRU's work addressing human impacts on animal welfare. From mole management to the effects of fishing on wild cetaceans, conservation translocations to the exotic pet trade, WildCRU's research has broadened debate and informed policy in many areas.

Considering animal welfare issues in conservation translocations

The movement of wild and captive bred animals to re-establish or reinforce wild populations is increasingly used in conservation efforts, sparking debates about individual animal welfare.

While there are natural synergies between animal welfare - focusing on the well-being of individual animals, and conservation - focusing on the status of populations or species, sometimes trade-offs are required, and complex ethical dilemmas posed.

As part of a long-term effort to address animal welfare challenges in conservation translocations, researchers from WildCRU, the Royal Veterinary College and others collected data from nearly 200 conservation practitioners. They were asked their views on what welfare means in this context and to what extent it is currently considered in decision making within translocation programmes.

This work is supporting the discussion and integration of animal welfare values and concerns into conservation translocations.



Incentivising conservation

Long-term conservation depends on wild species and habitats being a net benefit to people, locally as well as internationally. We research the development and implementation of financial and non-financial incentives for conservation, with a particular interest in developing sustainable conservation finance mechanisms.

Examples of WildCRU's work under this research theme:



Biodiversity friendly futures in Ethiopia's Afroalpine Highlands

Habitat loss and degradation in Ethiopia's highlands threaten Ethiopian wolves and other endemic wildlife as well as people's livelihoods.

WildCRU's Ethiopian Wolf Conservation Programme (EWCP) has been working on sustainable livelihood projects with communities and local authorities since 2016. EWCP provides training, materials and support for guassa grass and honey production, as well as fuel-efficient stove production and use.

In 2023, 104 honey producers harvested 676kg, raising over £4,200 in sales after personal consumption and 71 households harvested 258 bundles of guassa grass raising over £1,100 in addition to providing thatching, weaving and livestock fodder for the growers.

These initiatives have resulted in significant species and habitat conservation as well as direct economic benefits for 175 households.





Community camera trapping in Tanzania and Kenya

Generating tangible benefits from wildlife is key to conservation, especially when that wildlife can threaten human life.

WildCRU's Lion Landscapes programme has developed camera trapping initiatives in Tanzania and Kenya, where communities install camera traps and receive points according to the wildlife photographed on their land. Rarer and more dangerous animals generate higher scores and villages compete to win the most points. Points translate directly into community benefits. These benefits are chosen by local people, and include supporting education, healthcare, veterinary resources and football equipment. In 2023, communities across 21 villages received benefits, improving the lives of over 5,000 rural households.

This programme demonstrates that conservation can be an important route to development, improving outcomes for people and wildlife.



Photo © Aaron Gekoski / World Animal Protection

Wildlife use & misuse

All people use biodiversity to survive, but unsustainable use is a major conservation threat. We examine a wide range of wildlife use, including legal and illegal, consumptive and nonconsumptive uses, to assess the dynamics and impacts of such use and make recommendations for improving sustainability.

Examples of WildCRU's work under this research theme:



A gender perspective on sustainable wild meat use in the tropics

Wild meat is an important natural resource worldwide and must be sustainably managed to avoid livelihood insecurity and biodiversity loss.

An often-overlooked aspect of wild meat management is the pivotal role that women play in its harvesting, processing and distribution. Engaging women is thus key to achieving sustainability and equitable distribution of conservation benefits.

WildCRU PhD student Jasmin Willis is exploring the lack of gender perspectives in wild meat conservation. Conducting research in a major market in Ghana, she is identifying women's responsibilities and decision-making abilities within tropical wild meat systems.

This work will ensure that the experiences, needs and impacts of women can be addressed in wild meat related decision-making and conservation.

Informing Dracula orchid conservation



WildCRU researchers were part of efforts to Red List threatened Dracula orchids in 2023. Found in Central and South American cloud forests, 67% of species are threatened due to habitat loss, unsustainable harvesting and the impacts of climate change. These assessments are informing conservation action and species recovery plans.

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Ball python trade research shaping wildlife trade policy

The exotic pet trade poses a significant threat to many species worldwide due to unsustainable capture of live animals.

Ball pythons are a popular pet in the UK, Europe, North America and Asia, with traded individuals being supplied both from captive breeding and wild populations in west Africa.

WildCRU researchers worked with World Animal Protection to explore the supply of ball pythons from the perspective of collectors and farmers in Togo and Benin, and to quantify global trade patterns of this species. In 2023 their findings highlighting the extent of trade and suggestion of wild population decline contributed to EU trade decisions and the CITES trade review processes. The EU Scientific Review Group issued a "negative opinion" for the export of ranched specimens of ball pythons from Benin and Togo, meaning that imports into the EU are suspended until evidence is provided that they will not have a harmful effect on the conservation status of the species.

This work demonstrates the invaluable role of research in informing local and international policy to protect biodiversity.

Photo © SVieira

Conflict and coexistence

In a human-dominated world, wildlife increasingly shares space with people. This often leads to human-wildlife conflict, a major conservation threat. We research people's needs, values, and concerns to better understand such conflict and inform strategies for moving towards coexistence.

Examples of WildCRU's work under this research theme:



Addressing human-wildlife conflict in Botswana and Zimbabwe

WildCRU's Trans-Kalahari Predator Programme (TKPP) is helping address human-wildlife conflict (HWC) around Hwange National Park one of the last lion strongholds in Africa.

TKPP's long-running research revealed that lions and hyaenas are the species most commonly responsible for livestock predation. Following a collaborative process to design and implement solutions, the Long Shields Lion Guardian Programme was launched in 2013. To date, over 50 villages have been involved, using a combination of lion monitoring, patrols, deterring detected predators, reacting to conflict incidents, recovering lost livestock and using mobile livestock communal enclosures. Livestock losses have halved as a result of the programme, and significantly fewer lions have been killed in retaliation.

This initiative was the focus of an IUCN SSC Human-Wildlife Conflict and Coexistence Specialist Group case study in 2023 - showcasing the programme's process of understanding, innovating and addressing HWC challenges and sharing invaluable lessons learnt along the way.

This is an excellent example of how research and community-based conservation combine to benefit wildlife and people.





The first International Conference on Human-Wildlife Conflict and Coexistence

Organised by the IUCN SSC Human-Wildlife Conflict & Coexistence Specialist Group, this inaugural conference was co-hosted by WildCRU and the World Bank-led Global Wildlife Program.

Bringing together international participants from non-profit, government, academic, and donor backgrounds, the programme included scientific presentations, panel debates, short courses, keynotes and interactive discussions. Topics covered diverse fields from ecology and animal behaviour, to psychology, international development, economics, policy, mediation and peacebuilding.

Attended by 550 people from 70 countries, this initiative was a highly productive forum for knowledge exchange and interdisciplinary discussions - which continue beyond the event.



▲ IUCN SSC Human-Wildlife Conflict & Coexistence Specialist Group case study on WildCRU's Trans-Kalahari Predator Programme

WildCRU Postgraduate Diploma

Established in 2008, the Recanati-Kaplan Centre Postgraduate Diploma in International Wildlife Conservation Practice is an integral part of WildCRU's training goals. Diploma participants are early-career conservationists from biodiversity-rich countries, comprising the most talented and least privileged applicants who would not normally be able to attend a world-class university.



Class of 2023

The class of 2023 was made up of five students from Africa, two from South America, and one from Asia. Each brought a wealth of experience from work in their home countries, ranging from wildlife data management and analysis to humancarnivore conflict mitigation, biodiversity surveys to community-based conservation education and behaviour change initiatives.

The course's set modules are followed by a research project where students use their own data to explore specific conservation questions.

This year's topics are summarised below.



Training people from biodiversityrich countries counters parachute conservation.



By the end of 2023, 56 Diploma alumni had embarked on PhDs & 24 had started MScs.



Zimbabwean Diploma alumna Dr Moreangels Mbizah, founder of Wildlife Conservation Action NGO and TED Fellow



Bilal Mustafa: Extension, extinction and expansion of gharial in the Indus River system.



Paula Dufourg: The role of payments as an incentive in predator control in Patagonia.



Anthoine Sumbede: Trends and distribution of four duiker species in two Cameroon National Parks.



Patricia Kayula: Spatial response of lions to water sources and protection effort in Kafue National Park.



Nyasatu Mkaka: Caracal habitat preferences and interactions in the Ruaha-Rungwa ecosystem.



Samantha Rincón Rivera Exploring spatio-temporal associations of jaguars in the Colombian Llanos.



Mengistu Muluye: Interactions between Ethiopian and African wolves in the Ethiopian Highlands.



Lude Kinzonzi: Studying behavioural intervention to reduce urban consumption of bushmeat in Pointe-Noire.



We are very proud of the advances in conservation science and practice that we are achieving at WildCRU, but we must also continuously strive to do better. With every successful step there are also failures and challenges, and it is important to acknowledge those too.

For all the papers published and project ideas successfully funded, there will be many which have been rejected or failed to advance. That's an expected part of our work, as are the various challenges we face in the field. The project sites we work in are often remote and can be dangerous: our field teams encounter a wide diversity of threats, from floods and extreme heat to civil insecurity and risks from wildlife. Many of these threats are being amplified by the global climate emergency, making our work more difficult but ever more important.

Even working in safe, secure Oxford comes with plenty of challenges. Being a part of Oxford University is an immense privilege and brings many opportunities, but being part of such a large institution means there are numerous (but necessary) processes to follow, which can mean we are not always able to act quickly. There are also challenges with a lack of long-term funding, which means that many of our staff and students are in financially insecure positions. Furthermore, given the international nature of our work, we are particularly keen to have a diverse group of staff and students, but high overseas fees, growing politicisation of immigration and increasing visa issues mean that we find attracting and retaining people for international positions increasingly hard.

Possibly the greatest challenge we face is maintaining optimism in the face of immense, daunting threats to our natural world. The work we do is important, but sometimes it feels like snowflakes of positive action in a blizzard of threats. We know we are far from alone in this – many other conservation groups and other people feel the same way. When we feel daunted, we take strength from being part of this wonderful group, celebrate the changes that we have made, focus ever harder on building partnerships and expanding our impact, and know that despite all the challenges, together we are indeed making the world better for biodiversity and for people.

We take strength from being part of this wonderful group, celebrate the changes that we have made, and focus ever harder on building partnerships and expanding our impact.

Prof Amy Dickman, WildCRU Director



▲ Top to bottom: Camera trap research in Cote D'Ivoire, Jaguar density paper, MCC team members in Oxford, WildCRU members at the 2023 Global Cheetah Summit in Addis Ababa.



The next few years promise to be a very exciting time for WildCRU. Oxford's Biology Department is going to have a brand-new 'Life and Mind Building' (LaMB) in 2025, and we will be leaving our current home at Tubney House to move there.

We have been so thankful for our time in Tubney House and to the donors who made that home possible - particularly the Tubney Trust and the Recanati-Kaplan Foundation - but after 20 years there, we are also excited about this new chapter in our story.

We feel that the move into Oxford will bring great opportunities - it will make WildCRU a more visible part of the Biology Department in its daily life, and will enable closer collaboration with colleagues in the Department, in Colleges and elsewhere in central Oxford. There will be substantial changes that come with the move - for example, we are now exploring where our Diploma students will be accommodated once we move into Oxford, but we are examining exciting opportunities which we feel will make the student experience even stronger.

Within the group, in 2024 and beyond, we will strive to strengthen our cohesion, identity, internal collaboration, sense of purpose and importantly, our sense of fun! We will continue to invest in and strengthen the communication aspect of our work, as we believe that is critical for translating conservation science into action. Particularly considering our upcoming new location, we will identify and improve partnerships both within the University and beyond, in order to help deliver our mission of transforming conservation through world-class research, training and implementation.

We are so grateful to everyone who has supported us on our journey so far, and are excited to grow and develop in 2024 and beyond. Thank you all, and please do keep in touch!



▲ Top to bottom: Tubney House, Ecology and Conservation Symposium at Tubney, Architect's impression of LaMB, Professor Amy Dickman with Jacinda Ardern at an Earthshot Prize event.







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