



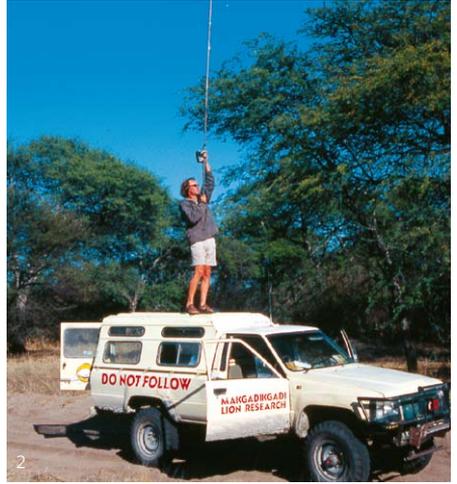
Science into Practice
Solving Conservation Problems



The planet's human population increases by more than 200,000 people every day. This exerts ever more severe and intensifying pressure on finite natural resources throughout the world. The resulting environmental degradation, biodiversity loss and climate change destroys nature and impacts human well-being. WildCRU's work is about solving conflict between peoples' futures and wildlife conservation. The need for our efforts is greater than ever.

Front cover credits, clockwise from left: Eurasian badger, survival affected by climate change (Andy Rouse); Lion, populations declining across Africa (Andrew Loveridge); Bechstein's bat, one of the UK's rarest bats, studied in WildCRU's Upper Thames Project (Andrew Harrington); African wild dogs, endangered by persecution and disease (Andrew Harrington); Garden tiger moth, declined by 89% over 35 years (Maarten Jacobs)





The mission of the **Wildlife Conservation Research Unit (WildCRU)** is to achieve practical solutions to conservation problems through original scientific research. Our research is used worldwide to advise environmental policy-makers.

- 1 Environmental degradation in Sulawesi. Photo: Lynn Clayton
- 2 Radio-tracking lions in Botswana. Photo: David Macdonald
- 3 European mink reintroduced in Estonia. Photo: Tiit Maran
- 4 Artisan turning snare wire into sculpture to generate livelihood. Photo: Greg Rasmussen
- 5 WildCRU's Conservation Quartet.

Part of the University of Oxford's Department of Zoology, WildCRU is a pioneering, inter-disciplinary research unit in a world-class academic centre. We underpin solutions to conservation problems through primary scientific research of the highest calibre. Our approach is empirical, inter-disciplinary and collaborative, seeking to include all four elements of our 'Conservation Quartet': **research** to understand and address the problem; **education** to explain it; **community involvement** to ensure participation and acceptance; and **implementation** of long-term solutions.

WildCRU's objectives are to:

- Undertake cutting-edge, original research to inform conservation actions based on excellent science.
- Train and develop conservation biologists from around the world.
- Inform policy on wildlife conservation issues and environmental management at a national and international level.
- Engage the wider public in conservation.

WildCRU's essential values are empiricism, analysis and dissemination. Our logo symbolises that trinity—the vulpine head reminds us of our well-grounded roots in fieldwork, the pen of our scholarship and the book of our determination to communicate our findings.

This brochure celebrates the launch of our 2020 Vision, which continues to combine our approach, objectives and values to deliver practical conservation through our strategic priorities.



An Oxford First! Founded in 1986, WildCRU was the first university-based conservation research unit in Europe. Today we are recognised as a world leader in our field.

- 1 Oxford University's dreaming spires. Photo: Nasir Hamid
- 2 David Macdonald, and fox cub, at the time of founding WildCRU. Photo: Jenny Macdonald
- 3 Tubney House, WildCRU's centre. Photo: David Macdonald
- 4 Lady Margaret Hall, WildCRU's collegiate base. Photo: Dick Makin
- 5 A cross section of our current team (from top to bottom) • Paul Johnson (Whitley Analyst) • Claudio Sillero (Travers Fellow and Chairman of IUCN Canid Specialist Group) • Sonam Wang (Bhutanese visiting researcher, working on tigers) • Adam Dutton (British DPhil student, and environmental economist, working in China) • Erika Cuellar (Bolivian DPhil student, and winner of Whitley Award, working on guanacos) • Silvio Marchini (Brazilian DPhil student, and founder of Escola da Amazônia, working on jaguars) • Alex Zimmerman (DPhil student, and Manager of Conservation Dept at Chester Zoo, working on human wildlife conflict) • Mark Stanley Price (Visiting Fellow in Conservation Strategy)

WildCRU was founded and developed by David Macdonald, Oxford's first Professor of Wildlife Conservation, who continues to guide its development. His concept was to tackle the emerging biodiversity crisis and wider environmental issues by bridging the gap between academic theory and practical problem solving. This scholarly approach provides the foundation for all of WildCRU's work and has been widely recognised. In 2004 David received the Dawkins Prize for Conservation, in 2006 the medal of the American Society of Mammalogists, and in 2007 the British equivalent. In 2008 he was elected a Fellow of the Royal Society of Edinburgh.

WildCRU is part of the University of Oxford, with close links to Lady Margaret Hall, the University's college where David Macdonald and two senior colleagues hold Fellowships and where many of our graduate students are registered. Although strongly committed to WildCRU, the University is unable to provide funding, so we rely upon grants and donations. Thanks to the Tubney Charitable Trust, WildCRU is now based at Tubney House, just outside Oxford, home to our team of experienced conservation biologists, doctoral students, field assistants, volunteers and visiting collaborators.

Since 1986, WildCRU, now with over 50 researchers, has grown to be one of the largest and most productive conservation research institutes in the world. Our members have been drawn from more than 30 countries and our projects have a similarly international reach, ranging from the Scottish Highlands to Mongolia, West Africa and the Galápagos Islands.

Most recently, our longstanding specialisation in wild carnivores has led to a partnership with the Panthera Foundation, with whom we are developing our aspiration to become the world's foremost university centre for felid conservation research.

Nature's processes take time, but many conservation science projects are constrained by their short duration. WildCRU specialises in long-running studies, each successive year of continuity increasing the value of the accumulated data.

- 1 Water vole, threatened by agricultural intensification and invasive mink. Photo: Andrew Harrington
- 2 Anaesthetised lion fitted with GPS collar by (left to right) Zeke Davidson, Andrew Loveridge and David Macdonald. Photo: Andrew Loveridge
- 3 Captive bred grey partridge released to supplement threatened populations in British farmland. Photo: Andy Rouse
- 4 Clouded leopard in Borneo, threatened by habitat loss and fragmentation. Photo: Andy Rouse
- 5 Orangutans, protected in the peat swamp forest of Borneo's Sabangau National Park. Photo: Andy Rouse

Our core research draws on a wide range of natural science disciplines, including ecology, behaviour, epidemiology, genetics, parasitology, biochemistry and physiology. WildCRU's recent recruits include environmental economists and development specialists. 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 is particularly renowned for its longstanding specialisation in wild carnivores, which are frequently at the sharp end of conflict with people. For 25 years we have provided a base for the IUCN Canid Specialist Group, originally chaired by David Macdonald and now by our Travers Research Fellow, Claudio Sillero. The Group oversees the study and conservation of all 36 members of the wolf, dog and fox family. Our studies of badgers and mink are among the most extensive in the world, and we run projects on 14 species of wild felid, from clouded leopards to jaguars, with more planned as part of our partnership with the Panthera Foundation.

However, our projects do not focus purely on carnivores. We also study other mammals, including rodents, bats, insectivores, ungulates and apes; birds, from the effects of El Niño on Galápagos penguins to the impact of farming on grey partridges in the UK; invertebrates such as butterflies, damselflies and crustaceans; and plants together with wider habitats.

"It's difficult enough to be interesting, but much harder to be useful."
David Macdonald on the challenges of applied research



Long-term data sets

Our long-term data sets provide insight into long-term processes, such as climate change, and provide the framework for our 3-5 year, shorter-term projects. We focus on scales from individuals through populations and communities to landscapes.



Nature's processes take a long time to unfold, so the WildCRU specialises in developing long-term data sets.



- 1 Harvest mouse in the Upper Thames valley. Photo: NEZS
- 2 Ethiopian wolves in the Bale Mts., Ethiopia. Photo: Martin Harvey
- 3 Eurasian badger in Wytham Woods, Oxfordshire.
- 4 Lion in Hwange National Park, Zimbabwe. Photo: Andrew Loveridge

Several of WildCRU's projects began over 20 years ago and are still ongoing. The resulting long-term data sets are invaluable for the in-depth ecological understanding they provide. Examples include:

Upper Thames Project: In the Upper Thames valley WildCRU studies wildlife, farming systems, environmental economics and community well-being. Our landscape-scale research on the impact of farming on wildlife encompasses individual studies of locally endangered moths, butterflies, damselflies, fish, bats, harvest mice, polecats and otters, together with invasive mink and crayfish.

Ethiopian wolves: Fewer than 600 Ethiopian wolves survive. For 20 years WildCRU has protected their last stronghold in the Bale Mountains, addressing threats such as rabies, hybridization and habitat loss, and training Ethiopia's future conservationists. We monitor 350 wolves in 70 packs, and have vaccinated 50,000 domestic dogs to prevent rabies transmission to the wolves. We have catalysed several million pounds from international donors to implement community conservation projects.

Wytham badgers: Since 1987 WildCRU has aimed to record every birth and death in the badger population at Oxford's famous reserve, Wytham Woods. So far we have recorded details for 1300 individuals, and DNA-fingerprinted 915 of them. The resulting data are pivotal for revealing the intricacies of badger societies and a goldmine for understanding the impact of climate change and the processes affecting the control of diseases, such as bovine tuberculosis.

Lions: Lion numbers have declined drastically across Africa in the last 150 years, with the species' range reduced by 82%. WildCRU's project in Zimbabwe's Hwange National Park has radio-tracked over 100 lions ranging over 7000km² of woodland savannah, and led to a 4-year moratorium on trophy hunting to allow the population to recover.

There is a human dimension to every WildCRU project and without the commitment and cooperation of local people, conservation is virtually impossible. We engage in education, community involvement and practical action to deliver ‘*Research Plus*’.

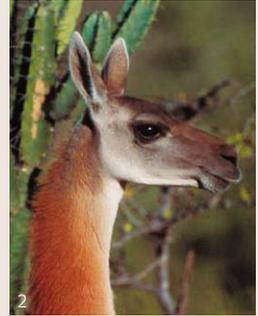
- 1 Local wolf team in Ethiopia. Photo: Claudio Sillero
- 2 Jungle school in Nantu Forest Reserve, Sulawesi. Photo: Lynn Clayton
- 3 Training para-biologists in Bolivia. Photo: Erika Cuellar
- 4 WildCRU’s anti-poaching team with snares destroyed in Zimbabwe. Photo: Martin Stierner
- 5 WildCRU’s conservation drama group performs to village children in Zimbabwe. Photo: Andrew Harrington

Our research branches out from our core expertise in the natural sciences to embrace the social sciences. We collaborate with other world-leading scientists and influential NGOs in areas such as public health, economics and sustainable development. Crucially, we monitor all of our research projects to verify progress and quality.

Our *Research Plus* activities include engagement in citizen science, involving volunteers within a partnership between WildCRU and Earthwatch. We have run an award-winning programme involving recovering drug addicts in field projects, theatre groups to communicate our message to local people in Zimbabwe and Sulawesi, Nature Clubs in Ethiopia, and an education programme in schools in Brazil. In the communal farmlands of Zimbabwe we operate a snare-cutting and anti-poaching patrol, and nearby members of our team operate the Painted Dog education centre that welcomes 600 schoolchildren annually.

WildCRU also engages with the business community and with governments, contributing evidence and advice to the development, implementation and evaluation of environmental policy. We have been involved in various high-level government reports, for example the Burns Report into hunting with dogs in the UK, and we have a memorandum of understanding with the Chinese government to work together on delivering sustainable agricultural landscape restoration. Internationally, David Macdonald chairs the Darwin Initiative (the UK’s response to the Rio Convention on Biodiversity); nationally he chairs Natural England’s Science Advisory Committee.





Reconciling the needs of nature and people in the face of the burgeoning human footprint is a great challenge for the 21st century.



Destruction of natural habitat and its conversion for human use remains the principal cause of biodiversity loss. WildCRU explores ways of reducing human-wildlife conflict and balancing the needs of people and wild animals.

1 WildCRU's upland focal site, Alladale Wilderness Reserve, in Scotland. Photo: David Clark

2 Endangered sub-species of Bolivian guanaco. Photo: Hal Noss

3 White ermine moth – 77% decline on British farmland over 35 years. Photo: Maarten Jacobs

4 Tiger 'caught' on camera trap in Bhutan. Photo: Sonam Wang

5 Wild boar used to prepare land for regenerating Caledonian pine forest in Alladale Wilderness Reserve. Photo: Chris Sandom

The global nature of the biodiversity crisis is reflected in the broad scope of WildCRU's work, from saving endangered species to restoring farmland wildlife. Examples of our approaches to reconciling biodiversity protection with changing and growing demands for land include:

- Mitigating conflict between big cats and local farmers. Our projects in this area include jaguar in Brazil, lion in Botswana, Kenya and Zimbabwe, snow leopard in China and cheetah in Namibia.
- Finding out how to reduce the impact on farmers' livelihoods of crop-raiding elephants in Assam.
- Working with local communities to conserve tigers in the forests of central India and Bhutan. The tiger's plight epitomizes the conflict between large predators and human populations.
- Protecting suitable grassland habitat and creating wildlife corridors in Bolivia and Paraguay to help conserve the guanaco, threatened with local extinction by poaching and loss of habitat to agriculture.
- Establishing trans-frontier efforts between Argentina, Bolivia and Chile to protect the Andean cat, the rarest South American felid, and preserving other biodiversity of the High Andes.
- Analysing the optimal network of habitat available for establishing protected areas throughout Gabon.
- Assessing the impacts of different types of farmland management on wildlife in England, including common but declining populations of moths and butterflies, rare bat and damselfly species and the endangered water vole. This innovative work has broadened to include socio-economics and lifecycle analyses of alternative farming systems.
- Exploring mechanisms for restoring components of the Highland ecosystem in the Alladale Wilderness Reserve, Scotland.

Wildlife as a resource

Almost everywhere that human enterprise meets nature, there is conflict over limited resources. Wildlife itself is often the resource that is exploited, sometimes unsustainably.



WildCRU is neither pro- nor anti-hunting, but we are anti poor management and pro sustainability.

- 1 Jaguar trophy skin.
Photo: Andrew Taber
- 2 Vicuña, providing a sustainable wool harvest in the Andes. Photo: David Macdonald
- 3 Tethered chimp destined for the pot in Equatorial Guinea. Photo: Lise Albrechtsen
- 4 Eco-tourism in Zimbabwe.
Photo: Andrew Loveridge
- 5 Radio-collared lionesses.
Photo: Andrew Loveridge
- 6 Flying foxes for sale in a market in Kalimantan.
Photo: Susan Cheyne

WildCRU's research and conservation actions aim to find ways for people and wildlife to coexist. Facilitation of sustainable use of natural resources, including wild animal populations, plays a critical role in preserving biodiversity. Through scientific research we provide the necessary foundation for sound environmental practice, so that when wildlife is exploited as a resource, it is done so sustainably.

Our inter-disciplinary approach seeks to ensure that people appreciate the intrinsic and economic value of natural resources, and to promote both a high standard of animal welfare and a respectful engagement with nature.

Some examples of WildCRU's efforts in this area are:

- Seeking solutions to the unsustainable exploitation of 'bushmeat' (wild animals hunted for food) in Central and West Africa – a problem that poses a serious threat to the survival of great apes and other wildlife.
- Tackling the unsustainable hunting of carnivores for fur and body parts on the Mongolian steppe.
- Promoting the sustainable and high-welfare harvest of wild vicuña wool in the Chilean Andes.
- Assisting national authorities with sustainable management strategies for lions in Zimbabwe.
- Gaining a better understanding of peoples' attitudes to jaguar predation and the ensuing conflict in Brazil's Amazon and Pantanal.
- Investigating the commercial use of captive wildlife, such as the economics of farming bears to harvest their bile in Asia.
- Providing a hub of information to a network of managers and practitioners dealing with the mitigation of human-wildlife conflict worldwide, through our People & Wildlife Initiative (www.peopleandwildlife.org.uk).

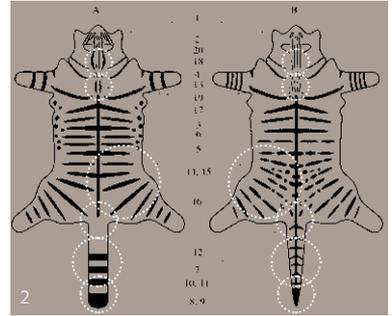
Invasive species displacing indigenous ones and threatening them with extinction is a widespread problem. WildCRU's research aims to understand the impacts of invasive species and to find practical solutions to mitigate them.

- 1 Small red-eyed damselfly, invading southern England in the wake of climate change. Photo: Steve Cham
- 2 Features distinguishing (A) Scottish wildcat from (B) feral or hybrid domestic cats. Image: Andrew Kitchener
- 3 Red squirrels face extinction in the UK due to disease spread by invasive grey squirrels. Photo: Andy Rouse
- 4 The invasive American signal crayfish is out-competing, and spreading fungal disease amongst, the native white-clawed crayfish. Photo: Ruairidh Campbell
- 5 WildCRU is studying invasive American mink from Belarus to Tierra del Fuego. Photo: Andrew Harrington
- 6 Endangered Santiago rice rat threatened by invasive black rats in the Galápagos. Photo: Donna Harris

Humans transport wild species around the world – sometimes deliberately, sometimes unintentionally – but often with disastrous effects for indigenous species. In the Galápagos Islands our research supports efforts to control invasive black rats, inadvertently introduced by man in the 18th century. Black rats threaten local biodiversity by displacing native mammals such as the very rare Santiago rice rat, and by eating the eggs of the archipelago's endemic bird species.

Other WildCRU projects on invasives include:

- Working to control the spread of American mink and reduce the threats they pose to native wildlife, from Oxfordshire to Tierra del Fuego. In Britain, we operate a water vole reintroduction programme to reverse the decline of this species, which has become the UK's most endangered mammal since the arrival of American mink. In Estonia we have set up an island refuge where the endangered European mink is safeguarded from its American competitor.
- Quantifying the impact of grey squirrels on Britain's native red squirrels. Since the greys were introduced in the late 1800s, the reds have suffered a dramatic reduction in range and numbers.
- Monitoring the spread of the continental small red-eyed damselfly into southern England with the warming climate.
- Studying the impact of invasive American signal crayfish on native white-clawed crayfish and riverine ecosystems in the UK.
- Studying wildcats in the Scottish Highlands. Feral domestic cats threaten conservation of the endangered Scottish wildcat through hybridization, but we have identified diagnostic markers to distinguish the native species.



With globalisation and climate change the problem of invasions is worsening.

Wildlife diseases bring the interface between people and wildlife into sharp focus, and the risks pass in both directions. WildCRU's research provides insights into wildlife diseases and their management.

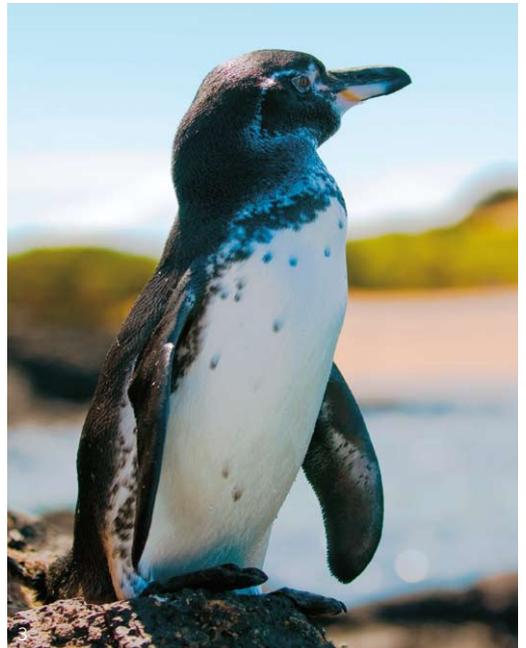
- 1 Chimpanzee, screened for pathogens in Uganda. Photo: David Macdonald
- 2 Ethiopian Wolf Conservation Project: loading syringe with anti-rabies vaccine. Photo: Andrew Harrington
- 3 Endangered Galápagos penguin screened for pathogens in Galápagos.
- 4 Two white blood cells, used in our studies of Leukocyte Coping Capacity to measure stress in mammals. Photo: Rubina Mian

Wildlife diseases and parasites present complex challenges. Often associated with human activities, diseases from domestic animals or people can devastate wildlife populations. Equally the effects of wildlife diseases on people, either directly, in terms of health, or indirectly, for example through the economic impact of livestock losses, can be catastrophic. Our studies provide insights into how diseases spread within and between animal populations and support strategies for their control, benefiting both people and wildlife. WildCRU's research into diseases includes:

- Working with parasitologists in Amazonia to reveal the role of crab-eating foxes in the epidemiology of American visceral leishmaniasis – a World Health Organization priority disease in the Neotropics.
- Screening for disease and stress in chimpanzees in Uganda and the consequences for their conservation.
- Understanding diseases carried by rats on British farms and the risks to human health.
- Screening feral cats for viruses and parasites that might threaten rare Scottish wildcats.
- Assessing the impact of parasites and pathogens on the success of water vole reintroductions.
- Controlling rabies in endangered Ethiopian wolves through vaccination.

One of our longest-running projects studies the role of badgers in the transmission of bovine tuberculosis to cattle in Britain. By incorporating epidemiological studies with our long-term research on badger social behaviour, we have shed light on why government policies involving badger culling have been ineffective and even counter-productive in controlling the disease. This has helped the evaluation of policy options and guarded against outcomes that could be fruitless for farmers and damaging to badgers.

The WildCRU's work on Ethiopian wolves underpinned the vaccination strategy that may have prevented their extinction by rabies.



Conservation projects must ensure their impact continues long after researchers leave the field. WildCRU's training and education programmes are important in laying the foundation for an enduring legacy.

A small selection of the WildCRU's Alumni



- 1 Rob Atkinson, Head of Wildlife RSPCA
- 2 Geoff Carr, Science Editor of The Economist
- 3 Sophie Stafford, Editor of BBC Wildlife
- 4 Tom Tew, Chief Scientist of the UK government's Natural England
- 5 Rosie Woodroffe, Senior Research Fellow at the Zoological Society of London
- 6 Sonam Wang, conservation advisor to HM the King of Bhutan

- 7 Andrew Taber, Executive Vice President at the Wildlife Trust Alliance, USA
- 8 Emilio Herrera, Professor of the Environment at Universidad Simón Bolívar, Venezuela
- 9 Páll Hersteinsson, Professor of Biology at the University of Iceland
- 10 Joshua Ginsberg, Director of the Asia Program, Wildlife Conservation Society, USA
- 11 Cristián Bonacic, Head of Fauna Australis, Pontificia Universidad Católica De Chile

- 12 Laurie Marker, Director of the Cheetah Conservation Fund, Namibia
- 13 Hernan Vargas, Director of the Peregrine Trust in Panama
- 14 Heribert Hofer, Director Institute for Zoo and Wildlife Research, Berlin
- 15 Chris Dickman, Professor of Zoology, Sydney University
- 16 Eli Geffen, Associate Professor in Zoology, Tel Aviv University, Israel
- 17 Kun Shi, Science Director of Nature Conservation at Beijing Forestry University, China

- 18 Axel Moehrensclager, Director, Conservation Research Unit, Calgary Zoo, Canada
- 19 Laura Bonesi, Reader in Biology, University of Trieste, Italy
- 20 José Roberto Moreira, Wildlife Curator at Embrapa, the Brazilian Agricultural Research Center
- 21 Lise Albrechtsen, Associate Professional Officer, FAO's Regional Office for the Near East, Egypt
- 22 Rurik List, Associate Researcher, Instituto de Ecología UNAM Mexico

PUBLICATIONS:

WildCRU publishes technical papers, reports and books for both general readership and conservation professionals, and is committed to promoting the public understanding of science and influencing policy.

Examples of the breadth of our recent writings include: Key Topics in Conservation Biology (2007); The Encyclopaedia of Mammals (2006); Biology and Conservation of Wild Canids (2004) with the Biology and Conservation of Wild Felids in press. Policy documents include The IUCN/SSC Canid Action Plan (2004) and The Scottish Wildcat Analysis for Conservation and an Action Plan (2004) and practitioners' outputs include The Water Vole Conservation Handbook (2007).

TRAINING & EDUCATION

WildCRU has trained to doctoral level over 60 conservation scientists from 30 plus countries, from Brazil to Bhutan, and Ecuador to Iceland. Our alumni include government chief scientists, chief executives of international conservation organizations, professors of conservation biology at leading universities and many other practicing, influential conservationists.

Our new diploma course, based at our Oxfordshire headquarters and supported by the Panthera Foundation, will train conservationists from the developing world. They will return to their home countries as qualified professionals and become leading agents of change and sound environmental practice.

Educating local communities in the areas where we operate research projects is a crucial part of WildCRU's *Research Plus* contribution to conservation legacy. Examples of our education, training and capacity-building work include:

- Training local university students and national park wardens in conservation techniques in the Galápagos Islands.
- Training rural pastoralists in Mongolia as game rangers and providing tools, from computers to radios, enabling them to manage their environment sustainably.
- Training local people as parabiologists to facilitate trans-frontier guanaco conservation in Bolivia.
- Running an anti-poaching patrol to protect lions in Zimbabwe.
- Providing forest protection patrols and an alternative livelihoods programme in Sulawesi (Indonesia).
- Running forest conservation workshops & training fire-fighting teams around orangutan and gibbon conservation programmes in Kalimantan (Borneo).
- Involving volunteers from HSBC in citizen science projects in the UK (and working with the Ley Community to inform and enthuse recovering addicts).

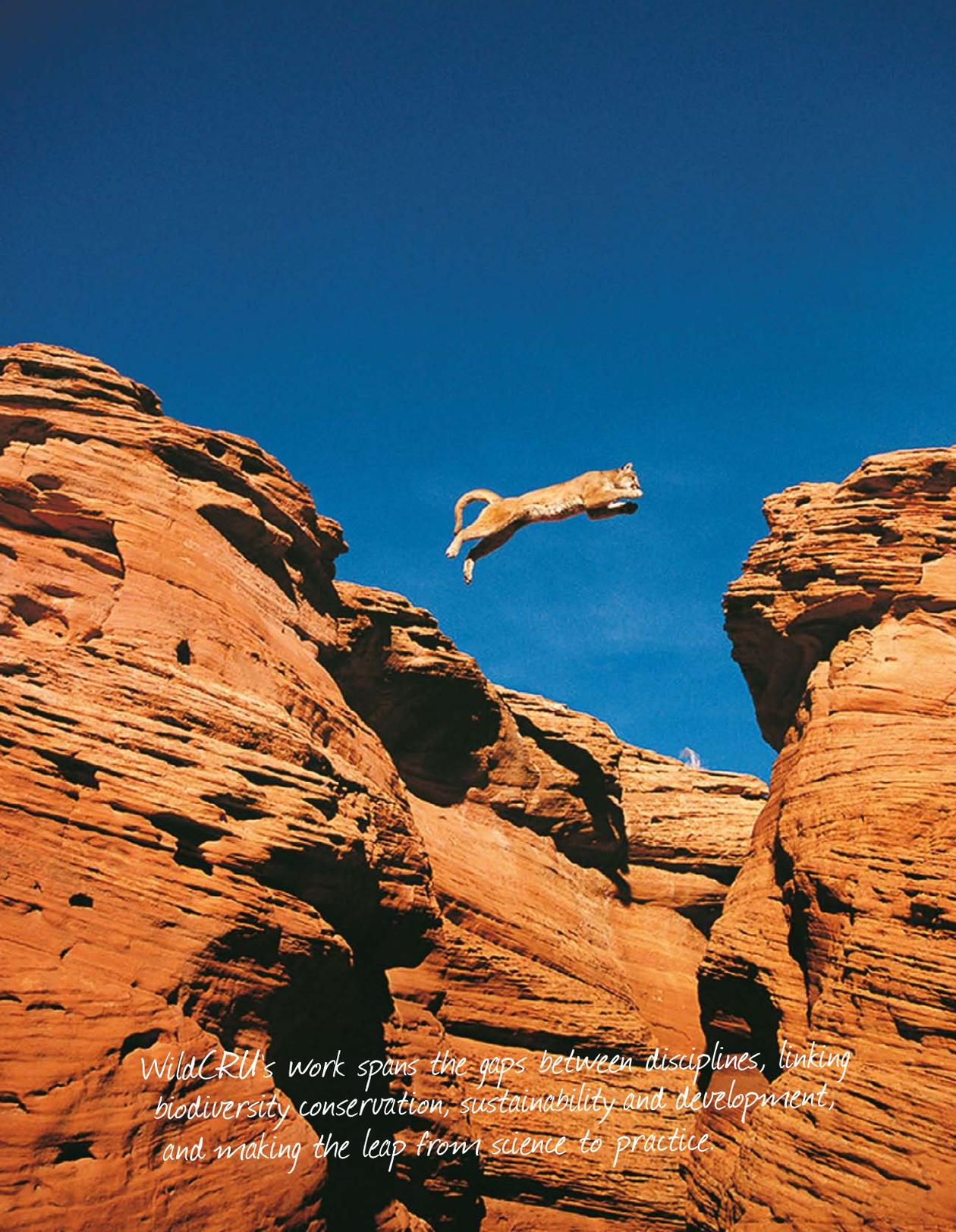
WildCRU's research is both scientifically original and of practical value. As we strive towards our 2020 Vision, our aim is to continue solving problems for the benefit of wildlife, people and the environment.

WildCRU, with an increasing emphasis on felids as umbrella species for conservation, is studying pumas, and their conflict with people, from Chile to Canada.
Photo: Andy Rouse

The field of wildlife conservation is evolving fast. Biology remains essential, but is no longer sufficient in isolation. Human development and related environmental and social studies are increasingly part of the equation. WildCRU's Vision, and strategic plan to be implemented by 2020, aims to combine the lessons of the past with foresight for the future.

WildCRU's 2020 Vision will build on our foundation of empirical, fact-finding fieldwork, both in the UK and overseas, nurturing long-term studies and catalysing portfolios of linked projects. We will intensify our inter-disciplinarity, and continue to pursue our essential trinity of empiricism, scholarship and dissemination, using research as a platform for influencing policy and education. Major topics of the past will remain central: rarity, conflict, invasives, and disease, in each case focusing especially on wild felids. They will be joined by new science priorities:

- **Restoring biodiversity in degraded environments** – In the UK we will focus in the lowland Upper Thames valley and the Alladale Wilderness Reserve. Overseas we aim to understand and assist habitat regeneration in areas such as the former Mega Rice Project in Borneo and Northeast China.
- **Safeguarding threatened populations** – Increasing human pressure means that already threatened wildlife must be protected if it is to survive to enhance the quality of life of future generations. This will often be about linking habitats and, internationally, trans-frontier collaborations. Innovative private land use will be essential.
- **Integrating an understanding of carbon dynamics and ecosystem services** – linking biodiversity conservation and energy policy, with an eye to ever changing demographics (climate change being an aggravating factor on the evil quartet of habitat loss, persecution, invasives and disease).
- **Quantifying the welfare implications of biodiversity conservation** – both in terms of the welfare of wildlife subject to management, and the health and well-being benefits for people of engagement with nature (using, for example, new physiological methods of quantifying stress, developed by WildCRU).



WildCRU's work spans the gaps between disciplines, linking biodiversity conservation, sustainability and development, and making the leap from science to practice.

Oxford University, and personally its Chancellor and Vice Chancellor, are committed to WildCRU's 2020 Vision. However, we are entirely dependent on grants from research councils and government bodies and donations from charitable trusts, companies and individuals.

Meerkats in the
Kalahari Desert.
Photo: David
Macdonald

Although Oxford University provides invaluable intellectual and institutional support, it cannot fund our appeals. For help in delivering WildCRU's 2020 Vision we turn to our extended family of colleagues, collaborators, students and supporters. We will be delighted to hear from those who want to help, whether as collaborators, potential graduate students or benefactors.

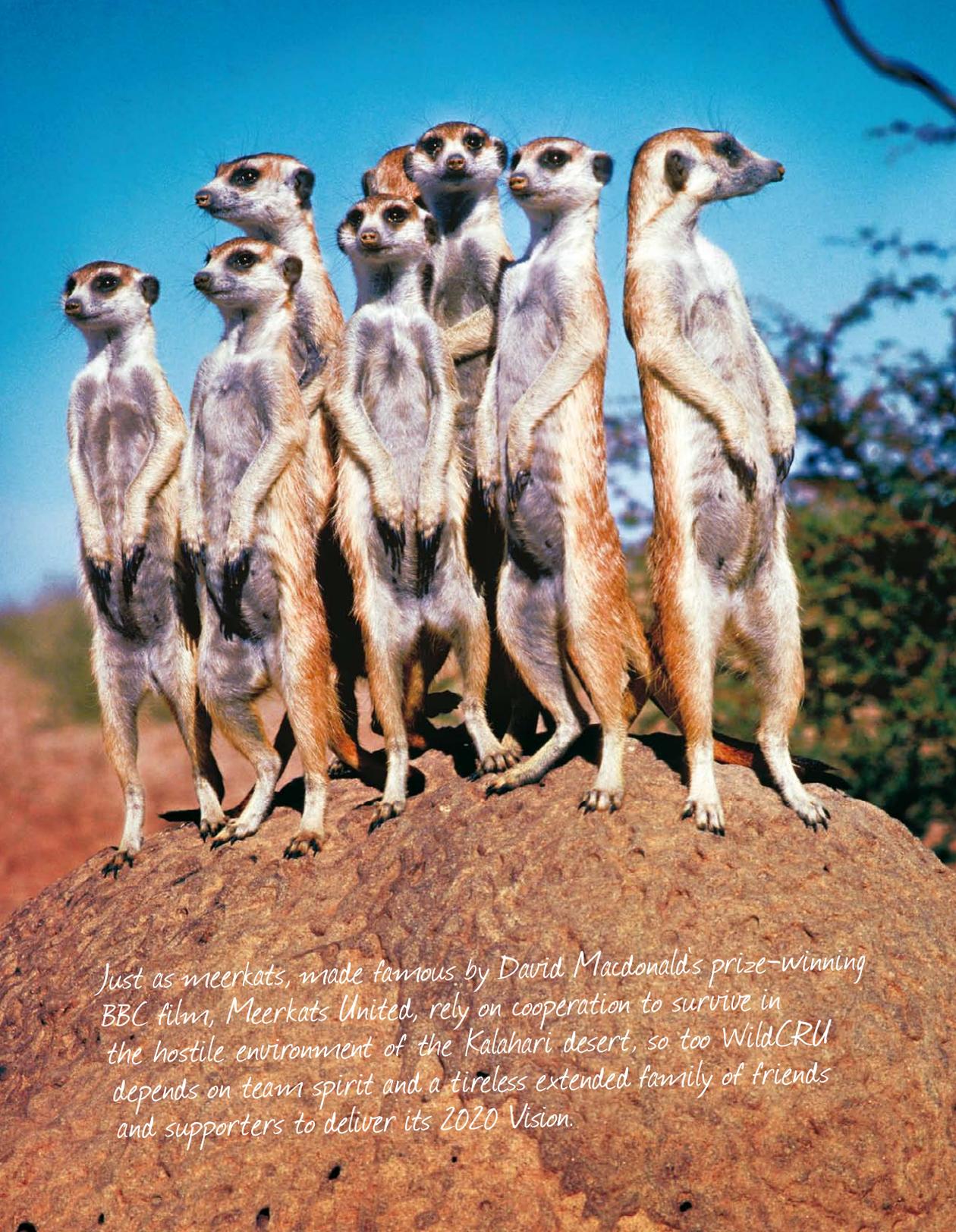
To complete WildCRU's consolidation, and ensure that we can deliver our 2020 Vision for the future, we are mounting four appeals:

- Engine Room appeal: to support our core staff.
- Emergency appeal: to support front-line research at short notice.
- IT appeal: to support an IT manager and up-to-date computers.
- Vehicle appeal: to support the purchase and up-keep of our vehicles.

CHARITABLE STATUS

The objectives of the University of Oxford Development Trust Fund are to promote, assist and secure the advancement of education, learning, teaching, scholarship and research at or in connection with the University of Oxford, its Colleges and societies, including WildCRU. The Fund is administered by the University and established for a special purpose in connection with the University. It is therefore an exempt charity for the purpose of charity legislation. As such, it has full charitable status; albeit it is exempt from the requirement to register as a charity with the Charities Commission, and therefore does not have a Charity reference number. The Fund's Inland Revenue reference number is XN80595.

Americans for Oxford, Inc. has been determined by the U.S. Internal Revenue Service to qualify under Sections 501(c)(3) and 509(a) of the Internal Revenue Code as a tax-exempt public charity. This organization can receive contributions and make grants available to the University of Oxford and to the departments and colleges within the University.



Just as meerkats, made famous by David Macdonald's prize-winning BBC film, Meerkats United, rely on cooperation to survive in the hostile environment of the Kalahari desert, so too WildCRU depends on team spirit and a tireless extended family of friends and supporters to deliver its 2020 Vision.

- 1 Scottish wildcat. Photo: Ewan Macdonald
- 2 2008 and the first intake of 'WildCRU Panthers', sponsored by the Panthera Foundation, arrive to train in practical conservation. Left to right: Aleksander Trajçe, studying lynx in Albania; Harunnah Bernard Lyimo, studying man-eating lions in Tanzania; Bing (Eve) Li, studying Amur tigers in China; Juan Carlos Huaranca Ariste, studying Andean cats in Bolivia and Ali Aghili, studying leopards in Iran. Photo: David Macdonald
- 3 Untangling the pattern of conflict: GIS map illustrating a sample of both jaguar sightings (black), and reports of conflict with humans (red), in the context of cattle stocking density (shades of russet), and protected areas (green). Image: Alexandra Zimmerman
- 4 Our growing emphasis on felids as paradigms for conservation is taking shape in studies of snow leopards in Xinjiang Province, China. Photo: Andy Rouse
- 5 Marbled cat captured by camera trap in Sabah. Photo: Andy Hearn/Jo Ross
- 6 Daniel Pamin setting camera trap in Sabah. Photo: David Macdonald

DONATIONS MADE FROM THE UK / CHEQUES & CREDIT CARDS

Our Donation and Gift Aid Form is available online at www.wildcru.org or please contact our UK office (see address below). Donors should make their cheque payable to **University of Oxford Development Trust Fund** and send it with the completed donation form to our address. Credit card payments may be made using the same form. UK taxpayers are requested to use the Gift Aid Scheme, which increases the value of your gift to WildCRU.

Any sum can therefore be given tax efficiently by UK taxpayers under the Gift Aid scheme. Higher rate taxpayers can also claim a higher rate tax relief, reducing the cost of their gift significantly.

ONLINE

Making your gift online is an efficient way to support WildCRU. This is via <http://www.giving.ox.ac.uk/wildcru>. If you are a UK taxpayer, the online giving site provides an option to add Gift Aid.

DONATIONS MADE FROM THE USA (BY US TAX PAYERS)

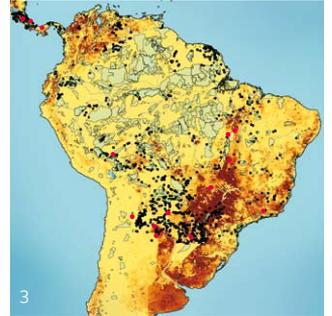
Tax deductible contributions may be made via Americans for Oxford, Inc. Donations may either be made online via www.oxfordna.org, or sent to the address below, together with a completed donation form available from www.wildcru.org/donations, or please contact our office.

CONTACT UK

WildCRU
Tubney House
Abingdon Road
Tubney, Oxfordshire
OX13 5QL
United Kingdom
T +44 (0)1865 393100
F +44 (0)1865 393101

CONTACT USA

Paul M Dodyk, Chairman
Americans for Oxford, Inc.
500 Fifth Avenue
32nd Floor
New York 10010
USA
T +1 (212) 377 4900
F +1 (212) 889 4052



Wildlife conservation is a dynamic, highly technical and rapidly-changing field. It embraces problems spanning the challenges faced by particular species – some charismatic, others obscure, some imperilled, others pestilential – to the grand global linkages of the 21st century, between biodiversity, livelihoods, food security, health and climate change. Whether the focus is on species or ecosystems, on protection or sustainable use, on wildlife or people, WildCRU is dedicated to producing the science that builds the policies that deliver the solutions.





The mission of the **Wildlife Conservation Research Unit (WildCRU)** is to achieve practical solutions to conservation problems through original scientific research.

WildCRU
Tubney House, Abingdon Road
Tubney, Oxfordshire, OX13 5QL
United Kingdom

T +44 (0)1865 393100
F +44 (0)1865 393101
E wcru@zoo.ox.ac.uk
www.wildcru.org

