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BORN FREE CONSERVATION REPORT 2018-2019

(Prepared by The Born Free Foundation)

Summary:

This document has been submitted by the Born Free Foundation. The Born Free Foundation became a CMS Partner Organisation in 2018. The Foundation conducts and supports a range of field conservation projects in Africa and Asia, alongside our international policy work, and our animal welfare and captivity initiatives. Many of these projects and initiatives are focussed on CMS-listed species and CMS priority activities including human-wildlife co-existence and conflict mitigation, habitat protection, restoration and connectivity, and research.



CONSERVATION REPORT

2018–2019

Published: October 2019



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FOREWORD

Consistency, sticking-power and genuine commitment seem to be values and qualities that are becoming more rare, and when they arise, or are in evidence, they are precious and to be supported and developed.

Born Free has these in abundance and is remarkable for taking a long-term, clear and certain approach to its work, over many years. As a result, we have a reputation, hard won, for maintaining our position, our aims and objectives. This includes our work with partners, whether as a funder, co-worker or supporter and – of course – our own core programmes, which stand the test of time.

The greatest organisations do not stand still. Born Free is evolving and we are making great strides towards being the very best in our field, with teams and individuals having the freedom to be as great as they can be, within a supportive and well-ordered setting, working towards a common purpose, to Keep Wildlife in the Wild.

Within that setting, we have worked together to build clear themes, priorities and strategies, with a duty to develop and lead inspirational programmes, evidenced, properly reported and with purpose. But more than that, we must translate our evidence and experience, across all our work, into unmissable stories that compel, inspire and motivate others – anybody – to believe that they play a part too. And the part they play, that we play, is in building movements for change and for action to protect and value the wildlife and natural systems upon which we all depend.

It has been my enormous pleasure to see these developments manifest in the area of conservation, its new leader and the entire team that has now been built. There can hardly be a more clear example of how leadership, professionalism, expertise and passion have come together, building on the past, and maximising those qualities, within that supportive environment, to forge a growing and extraordinary body of work.

The following report is testimony to what becomes possible when a great challenge is wholeheartedly accepted. The Born Free team can be justifiably proud of the achievements of our new conservation team, extended across three continents through our international teams and partners, and the impacts we can show. There is much more to come, so much more to do, and greater stories to tell as we grow, but for now I commend this excellent summary report, the values it stands upon and the work of many people to make it so.



A handwritten signature in dark ink, appearing to read 'Howard Jones', written in a cursive style.

Howard Jones
Chief Executive Officer, Born Free

INTRODUCTION

Born Free's purpose is to develop sustainable systems for co-existence that enable wild animals to thrive in the wild, free from human exploitation. Our impact goals are to end wild animal exploitation and suffering, protect threatened species in the wild and inspire behaviour change.

Our Compassionate Conservation approach promotes co-existence with animals through the development of an intelligent and instinctive compassion for individual animals, wildlife and wild places and their place in our future. Born Free embraces evidence-based conservation and sets an agenda that seeks to influence, inspire and encourage a change in public opinion away from keeping wild animals in captivity to protecting wildlife in the wild. To work towards achieving our impact goals, Born Free operates within the framework of nine operational priorities.

As the global human population expands, wildlife is coming under increasing pressure. The threats are many, including habitat degradation and fragmentation, unsustainable and commercialised poaching, illegal wildlife trade, disease and wildlife conflict. Increasingly, the expansion of large-scale agri-business and the exploitation of natural resources by the extractive industries, as well as slash and burn subsistence farming and linear development, are driving the loss of habitat.

Born Free operates species and issue-centric projects and programmes, focusing on flagship, keystone and umbrella species, which are threatened with extinction. We address key environmental challenges including human–wildlife conflict, prey depletion and habitat destruction, which impact both wildlife and human communities. We employ a science-based approach and use best practice methodologies. We operate a tiered system for our field conservation projects. Our Tier 1 projects are our flagship projects and form the core of our work. These are long-term, large, high profile programmes, which are funded, implemented and managed by Born Free. Tier 2 projects are those that we part-support financially. They are initiated and operated by like-minded organisations, and Born Free provides limited technical support or management where needed.

This report summarises the work delivered by the Born Free team and our partners during the financial year 2018–2019. It aims to capture and celebrate our achievements over the last year, and to recognise the huge effort and progress made by members and partners of the organisation.

For more information on ecology, conservation status and threats of any of the species featuring in this report, please see our website www.bornfree.org.uk.

GLOSSARY

AERP – Amboseli Elephant Research Project

AVEN – Association for the Valorisation of Ecotourism in Niger

BAAVAN – Bagh aap aur van

BMWS – Banyang-Mbo Wildlife Sanctuary

BCCP – Bulindi Chimpanzee Community Project

BES – Babile Elephant Sanctuary

CAT – Conservation Action Trust

DPKY – Dong Phrayayen-Khao Yai

EAGLE – Eco-Activists for Governance and Law Enforcement

ELRECO – Elephant Research and Conservation

EWCA – Ethiopian Wildlife Conservation Authority

EWCP – Ethiopian Wolf Conservation Programme

GCF – Giraffe Conservation Foundation

GIS – Geographic Information Systems

GRACE – Gorilla Rehabilitation and Conservation Education

IUCN – International Union for Conservation of Nature

KAZA – Kavango-Zambezi Transfrontier Conservation Area

KRCS – Korup Rainforest Conservation Society

KWS – Kenya Wildlife Service

LAGA – Last Great Ape Organisation

NGO – Non-Governmental Organisation

PPBs – Predator Proof Bomas

RPUs – Rhino Protection Units

SLTP – Satpuda Landscape Tiger Partnership

WildCRU – Wildlife Conservation Research Unit, University of Oxford

KEY

Born Free has defined nine working priorities, as outlined below, on which all our work focuses. Throughout this report, we detail which priority each project addresses.

1

CAPTIVE WILD ANIMAL EXPLOITATION

We work to stop captive animal suffering, challenge the captive animal industry, and phase out zoos.

2

TROPHY & CANNED HUNTING

We strive to eliminate trophy and canned hunting by exposing its fundamental immorality and demonstrating alternative solutions.

3

WILDLIFE TRADE

We are fighting to end the illegal wildlife trade, with a particular focus on tackling the trade in ivory, lions, cheetah, pangolins, and trade in live animals and other animal parts.

4

RESCUE, CARE, REHAB & RELEASE

We have been involved in the rescue and rehabilitation of countless individual animals, saving them from a life of suffering in captivity.

5

HUMAN/WILDLIFE CO-EXISTENCE & CONSERVATION

We protect threatened species and their natural habitats and find Compassionate Conservation solutions so that people and wildlife can live together.

6

INTEGRATED WILDLIFE PROTECTION

We have developed an integrated wildlife protection model, with particular emphasis on wildlife law-enforcement and community engagement.

7

TRANSBOUNDARY PROGRAMMES

We work to protect habitats and threatened species, focusing initially in West Africa and the Horn of Africa.

8

UK WILDLIFE PROTECTION

We protect UK wildlife by engaging in issues including policy, captive welfare standards, and public education and engagement.

9

INFORM, INSPIRE, ENGAGE

Our educational activities inspire people, young and old, to respect wildlife and natural habitats.

BORN FREE **LED** **6** **AND** **11**
TIER 1 **programmes** **SUPPORTED** **TIER 2** **projects**

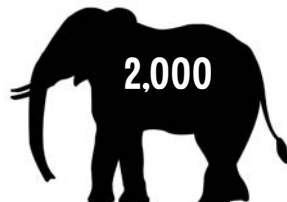
We helped protect an estimated:



Lions



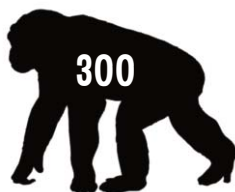
Gorillas



Elephants



Rhinos



Chimpanzees



Giraffes



Wolves



Tigers

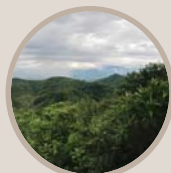
We worked to conserve these different habitat types:



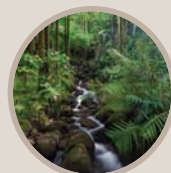
Savannah



Grassland



Tropical dry forest



Tropical rainforest



Coastal & marine



Afro-alpine



Afro-montane forest



Sub-alpine prairies



Arid ecosystems



Semi-arid ecosystems

OUR WORK 2018–2019

Our conservation work falls into six main themes. Here we summarise our work during 2018–2019 in terms of these six elements.



**Utilising
technology and
expertise**



**Reducing conflict
and promoting
co-existence**



**Monitoring and
research**



**Combating the
illegal wildlife
trade**



**CONSERVATION
2018–2019**



**Supporting
people through
conservation**



**Protecting
habitats at
all scales**

REDUCING CONFLICT AND PROMOTING CO-EXISTENCE

Humans have transformed almost half the world's surface, largely for agriculture, pastoralism or urban development.

Rapid human population growth results in land use changes and the loss or degradation of wildlife habitats and resources. Conflict occurs when the basic needs of wildlife interfere with those of humans and when the behaviour of one negatively impacts upon the goals of the other. The impacts to both people and wildlife are significant; people may lose their livestock or crops and therefore their food security and livelihoods, their property, and even their lives. In retaliation, and in the hope of preventing future loss, people may kill or injure wild animals. As the human population grows and wildlife habitats shrink, human–wildlife conflict is increasingly becoming a major driver of species decline.





CO-EXISTENCE WITH CARNIVORES

As carnivores sit at the top of the food web, they are naturally rare. Carnivore species – such as lions, leopards, tigers and wolves – are threatened across the world by hunting, habitat loss, prey depletion, disease and, increasingly, human–wildlife conflict. About 37% of the Earth's ice-free terrestrial surface is agricultural land of which 11% is used for crop production and 26% is used for livestock grazing. As predators, carnivores are especially dangerous to livestock and humans, thus creating a culture of fear and intolerance. By nature, large-bodied carnivores require vast landscapes from which to acquire resources. As human populations expand and claim more wild spaces, the landscapes on which carnivores depend become fragmented and small, forcing humans and wildlife into closer proximity. Reducing conflict, creating tolerance and enhancing co-existence will be key to securing viable carnivore populations.

KENYA, EAST AFRICA

Pride of Amboseli – Tier 1

5

The programme

African lions are declining across their range, and the species is currently listed as Vulnerable on the International Union for Conservation of Nature (IUCN) Red List. In Kenya, lion numbers plummeted from 10,000 individuals in the 1980s to only 2,000 today. In 2010, Born Free initiated the Pride of Amboseli programme to reduce human–lion conflict and promote co-existence through the construction of predator-proof bomas (PPBs) in six group ranches around Amboseli National Park. The Amboseli Ecosystem is a hotspot for human–lion conflict, particularly livestock predation. The loss of a single cow causes great resentment among the Maasai, whose culture is tightly bound to livestock and pastoralism, and this can result in the retaliatory killing of lions; an average of 18 lions were killed per year between 2001–2006 from a population estimated at between 50–100 individuals. The PPBs safeguard livestock, Maasai livelihoods and the lion population.

Our support

Born Free funds, implements and manages this programme.

Activities in 2018–2019

This year, our Born Free Kenya team constructed nine PPBs, benefitting 189 people and protecting 2,637 livestock. In total, 275 PPBs have been constructed since the project began and to date, no livestock have been killed inside them. Lion numbers are now rebounding thanks to the progress made on the project and the efforts made by other partners also working in the landscape. There are now approximately 200 lions in this landscape and the population is thought to be close to carrying capacity.



LIONS

- > Lion populations have declined by approximately 42% between 1993–2014.
- > As top predators in their landscape, lions play a key role in regulating herbivore and mesopredator (medium-sized predators) populations, preventing overpopulation and controlling disease by removing the weakest individuals. This role has the added benefit of regulating the habitats such as grasslands and forests.
- > By protecting lions and encouraging co-existence, the landscape will thrive, benefitting wildlife and humans.

INDIA, SOUTH ASIA

Satpuda Landscape Tiger Partnership – Tier 1

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The programme

The Satpuda forests of Madhya Pradesh and Maharashtra states offer perhaps the best hope for India's remaining 2,000 wild Bengal tigers, which are listed as Endangered by the IUCN. The Satpuda Landscape lies in Central India, which has a tiger population of approximately 600–700 individuals. Constituting several tiger reserves connected by forest corridors, this is the largest viable block of tiger habitat in India. In this landscape, tigers are threatened by habitat loss, linear development (road and railways), and retaliatory killing arising from conflict and prey depletion. Satpuda Landscape Tiger Partnership (SLTP), developed by Born Free and the Wildlife Conservation Research Unit (WildCRU) at the University of Oxford, brings together a network of Indian conservationists and non-governmental organisations (NGOs) working across this very important tiger range, in Bori-Satpuda, Kanha, Melghat, Pench Madhya Pradesh, Pench Maharashtra, Navegaon-Nagzira and Tadoba-Andhari Tiger Reserves and the habitat corridors linking them. Together, the network addresses conflict, invests in conservation education and works on policy issues across the landscape.

Our support

The NGO partners include Born Free, Bombay Natural History Society, Conservation Action Trust, Corbett Foundation, Nature Conservation Society Amravati, Satpuda Foundation, Tiger Research and Conservation Trust, and Bagh aap aur van (BAAVAN). WildCRU is also an institutional partner.

Born Free funds the partnership, holding meetings with all the partners on a quarterly basis, as well as an annual seminar in India. The seminar brings all the partners together to discuss the partnership and showcase their work in front of the Forest Department and other relevant government institutions. Born Free also funds some of the work implemented by the partners on the ground, through grants.

Activities in 2018–2019

This is a human-dominated landscape and as such, SLTP partners focus on the human communities living around tiger reserves. The aim is to reduce over-exploitation of forest resources that causes habitat degradation and increases the risk of human–tiger encounters that lead to conflict. Conservation interventions include bio-gas initiatives that reduce reliance on firewood, and initiatives that help develop sustainable livelihoods. SLTP also supports a well-established Mobile Education Unit, which visits local schools to teach children about the importance of wildlife and co-existence, and a Mobile Health Unit, which builds trust, facilitates the acceptance of conservation within the communities, and provides critical healthcare in a context where access to healthcare is a challenge (page 39). The partners also monitor tiger populations and their habitat outside the tiger reserves, and they mitigate human–tiger conflict through the establishment of community rangers called Tiger Ambassadors. Partners believe that community participation and awareness is enhanced and government-led tiger surveys show that tiger numbers are increasing in the Central Indian landscape.



TIGERS

- > There are approximately only 4,000 tigers left in the wild.
- > There are nine recognised tiger subspecies, three of which are now extinct – Born Free supports both Bengal tigers (in India) and the Indochinese tiger (in Thailand; page 37)
- > Tigers are now a conservation dependent species, requiring large contiguous forests with access to prey and water and undisturbed core areas in which to breed.

CO-EXISTENCE WITH CHIMPANZEES

Human populations are rapidly increasing in West and Central Africa, where chimpanzees live. Increasing pressures are being exerted on forests for extractive industries, settlements, subsistence farming, hunting and gathering. As forest is destroyed, chimpanzees increasingly find themselves in mosaics of forest and human-modified habitats and living in proximity to humans. Some human-dominated landscapes result in habitat unsuitability for chimpanzees, where resources become scarce. Due to some flexibility in their behaviour they are able to adapt, but this can entail exploiting human food sources, leading to conflict and resulting in chimpanzees being targeted. Born Free supports projects that aim to reduce negative interactions between people and chimpanzees to promote co-existence.

UGANDA, EAST AFRICA

Bulindi Chimpanzee Community Project – Tier 2

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The programme

In western Uganda's Hoima District, wild chimpanzees survive in shrinking fragments of forest on agricultural land around villages, with no formal protection. However, the region has strong conservation value as a corridor linking the major chimpanzee populations in two large protected areas, Budongo and Bugoma Forest Reserves. The eastern chimpanzee is listed as Endangered on the IUCN Red List. Approximately 300 eastern chimpanzees live in this unprotected Hoima corridor, and are under immediate threat from forest loss and habitat conversion caused by widespread logging and farming. Bulindi Chimpanzee and Community Project (BCCP) protects the local chimpanzee population by monitoring and providing sustainable rural initiatives that prevent or stop deforestation. Interventions include schoolchild sponsorship for parents who protect forested land, conservation education in schools, alternative livelihoods, the establishment of an extensive tree-planting programme, and the distribution of fuel-saving stoves. These interventions improve local peoples' quality of life, and their understanding and tolerance of chimpanzees.

Our support

Born Free supports BCCP by providing funding for equipment, field expenses, seeds and tree nursery construction material. Additionally, Born Free contributes to the pilot of a conservation education programme and schoolchild sponsorship (see page 39).

Activities in 2018–2019

BCCP raised and distributed 327,400 tree seedlings for planting (including 175,400 trees for woodlots and habitat restoration, and 152,000 coffee trees for chimpanzee-friendly coffee farming). BCCP also installed 236 energy-saving stoves, constructed nine village wells, monitored four resident chimpanzee communities on a daily basis, supported 53 pupils through the schoolchild sponsorship scheme, and initiated a school conservation outreach pilot in two schools. As a result of their efforts, BCCP purports that deforestation has stopped, natural forest is regenerating, and local tolerance towards the chimpanzees has improved.



CHIMPANZEES

- > Eastern chimpanzee populations have declined from approximately one million at the turn of the 20th century to potentially as few as 150,000 individuals.
- > In the equatorial rain forests of Central Africa, over 90% of all tree species are dependent on wildlife to disperse their seeds.
- > As a large-bodied primate, chimpanzees play a critical role in dispersing seeds and maintaining tree diversity and resilience, and forest structure and composition.
- > There are four recognised sub-species of chimpanzee: the eastern, western, central and Nigeria-Cameroon chimpanzees.

CO-EXISTENCE WITH ELEPHANTS

Both African savannah and forest elephants are highly threatened and are currently classified and listed as one species with a status of Vulnerable on the IUCN Red List. Elephants face numerous threats to their survival, including poaching, habitat loss and conflict with people. Requiring vast landscapes from which to acquire their resources, elephants are negatively impacted by the loss and degradation of their habitats. The enforced proximity between people and elephants as a result of human population growth and encroachment into wild spaces leads to conflict. Elephants feed on human food sources, damage property – including water storage tanks – and pose a risk to human safety. Born Free supports projects across Africa that aim to protect wild elephants in their habitat, by reducing human–elephant conflict and preventing poaching.

ETHIOPIA, EAST AFRICA

Babile Elephant Sanctuary – Tier 1

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The programme

The Babile Elephant Sanctuary (BES) is home to approximately 250 elephants. These are thought to be the last of a population that once ranged in eastern Ethiopia and northern Somalia but was largely extirpated during the 20th century. Today, the elephants of the BES are threatened by poaching, human–elephant conflict, chronic civil unrest, uncontrolled in-migration and settlement, development, and habitat loss and degradation. Born Free began working at the BES in 2014 to reduce elephant poaching and human pressures on elephant habitat through improved law enforcement, after 100 elephants were illegally poached for their ivory in 2012 and 2013.

Our support

Born Free funds, implements and manages the programme in collaboration with the Ethiopian Wildlife Conservation Authority (EWCA).

Activities in 2018–2019

This year, civil conflict between the Oromo and Somali ethnic groups was a challenge, and spikes in elephant poaching in 2018 appeared linked to periods of fighting and instability. There was also an influx of illegal settlement, which is accelerating the rate of habitat destruction within the sanctuary, and therefore the occurrence of conflict between humans and elephants as they increasingly compete over limited resources and space. We continued to support daily ranger patrols to monitor and protect the elephant population and reduce the risk of poaching. We piloted chilli pepper fences and demonstrated their effectiveness as a conflict mitigation measure. We also facilitated and supported meetings with government stakeholders and agreed action plans to reduce the threats facing the sanctuary. Progress has been slow; ethnic conflict demonstrates that conservation can only have an impact where there is political stability. The conflict ended at the start of 2019, giving us hope that in the near future we can have greater impact.



ELEPHANTS

- There are approximately 400,000 African elephants left in the wild.
- Elephants are a keystone species and, being the world's largest land mammal, they modify habitats more than other species; they are known as ecosystem engineers.
- They disperse seeds over huge distances, knock down trees and trample vegetation, which allows new growth and smaller animals to browse.
- They dig for water in the dry season, benefitting many other species who may be otherwise unable to access it.

CAMEROON, CENTRAL–WEST AFRICA

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Banyang–Mbo Wildlife Sanctuary – Tier 1

The programme

With a population decline of 62% between 2002 and 2011, the forest elephants of West and Central Africa are highly threatened, because of increasing human population density and high rates of forest fragmentation. Banyang–Mbo Wildlife Sanctuary (BMWS), Korup National Park and other neighbouring forest blocks in the south west region of Cameroon once supported a significant population of forest elephants but after several decades of poaching, their numbers have severely declined. Born Free has been working at the sanctuary since 2016, conducting rapid reconnaissance surveys to establish the status of elephant populations so that management decisions can be taken that will enhance their survival in the longer term. Though poaching is no longer a significant economic activity here, elephants remain vulnerable when they move from protected areas and into villages. Human–elephant conflict on farms surrounding these protected areas is driving mortality. Since 2017, Born Free has collaborated with the Korup Rainforest Conservation Society (KRCS) to establish the Elephant Guardian Programme in villages around the sanctuary. The aim of this programme is to increase human tolerance for elephants, so that elephants can move unimpeded through the landscape. Local communities are encouraged to inform project staff rather than poachers when they encounter elephants, and farmers' crops are safeguarded using chilli-fencing.

Our support

Born Free funds, implements and manages the programme.

Activities in 2018–2019

Chilli-fencing was demonstrated to be an effective means by which farmers could safeguard their crops. Unfortunately, before we could expand this intervention to other communities, civil conflict worsened to such a degree that all conservation organisations were forced to suspend their activities until further notice. We are carefully monitoring the situation and keeping in regular contact with our field assistants on the ground, until we can resume this work.





CO-EXISTENCE WITH MARINE LIFE

Three-quarters of the world's largest cities are located by the sea and about 80% of the global human population live within 60 miles of the coast. The ocean has an incredibly high phylogenetic diversity, but only 3% is free from human pressure. As such, marine and coastal ecosystems are under huge pressure from human activities. Threats include pollution, development, mass tourism and the introduction of nonindigenous species. Climate change-induced ocean warming and acidification is destroying coral reefs and the species dependent on them, and changing the ranging patterns of fish and disrupting fisheries. Rising sea levels are destroying reefs, sea-grass beds and wetlands. By the year 2100, more than half of the world's marine species may become extinct, unless changes are made to safeguard them. Our support goes towards tackling some of the greatest issues threatening marine and coastal biodiversity, including bycatch, human-wildlife conflict, habitat loss and pollution.

TANZANIA, EAST AFRICA

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Sea Sense – Tier 2

The programme

Tanzania is rich in marine biodiversity. The natural productivity associated with coral reefs and seagrass meadows is central to the lives of coastal fishing communities and as a result, coastal communities frequently interact with marine wildlife during their daily lives. However, marine life here is at risk from destructive fishing practices, bycatch, over-exploitation, habitat loss and conflict. Over the past 17 years, with continuous support from Born Free, Sea Sense has implemented a range of research, conservation and education activities that promote the protection and continued survival of endangered marine species. Their work helps to protect threatened species such as dugongs, several turtle species (green, hawksbill, loggerhead, olive ridley and leatherback), whale sharks and numerous cetaceans. Sea Sense uses a grassroots approach to promote harmony between humans and marine wildlife. A network of community Conservation Officers is active across nine coastal districts and serves as a vital link between Sea Sense and local communities.

Our support

Born Free contributes to Sea Sense's operational costs.

Activities in 2018–2019

This year, Sea Sense successfully facilitated a number of learning exchanges between their Conservation Officers and local communities to improve engagement in marine wildlife conservation. Local Biodiversity Action Plans were implemented with the agreement of local communities to enhance marine protection and promote co-existence. Additionally, their network of Conservation Officers continued to lead community-based marine conservation efforts that included daily patrols of nesting beaches. Between April 2018 and March 2019, 33,966 turtle hatchlings were recorded as having safely reached the sea.

Sea Sense held environmental education and outreach activities which included community events on World Environment Day, World Sea Turtle Day, World Clean-up Day, World Fisheries Day and World Wildlife Day; 19 community theatre projects; a marine wildlife roadshow; visits to four primary schools and three focus group discussions which involved local community leaders, fishers and conservation officers. These groups assessed the knowledge, attitudes and perceptions of these people towards biodiversity conservation and management. Additionally, the aim was to sensitise participants on sustainable fishing practices for the benefit of marine biodiversity and fisheries-based livelihoods.

Education efforts focused on raising awareness of marine wildlife biology and behaviour as well as threats to marine ecosystems and the marine wildlife they support. As a result of using a grass roots approach to promote co-existence between humans and wildlife, attitudes appear to be changing towards marine species, improving the chances of their long-term persistence in Tanzania.



MARINE LIFE

- > The oceans cover 71% of the world's surface.
- > Wetlands play a crucial role in buffering human communities from storm surges, filtering out pollutants from drinking water, protecting species and sequestering carbon.
- > More than 80% of the deep ocean still remains undiscovered.

MONITORING AND RESEARCH

Monitoring and researching biodiversity is critical for conservation as it can answer key questions, inform our decision-making, and provide information on how an ecosystem might change over time and how we can best protect it.

Measuring the baseline of species patterns, socio-economic situations and threats, helps us identify appropriate interventions; and monitoring changes over time can inform whether an intervention has been successful. Increasing ecological knowledge and ensuring ongoing monitoring of wildlife populations enhances our capacity and efficacy in implementing successful conservation initiatives and driving adaptive management. Here, we describe the achievements of Born Free's efforts and those of our partners who are working towards enhancing knowledge systems.





KENYA, EAST AFRICA

Pride of Meru – Tier 1

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The programme

In 2014, Born Free returned to its roots in the Meru-Kora landscape, with the long-term objective of safeguarding its lion population. The Meru Conservation Area, a 4000km² area, is composed of Meru and Kora National Parks, and Bisanadi and Mwingi National Forests. During the 1990s, Meru National Park was hit hard by poaching and banditry, but over the last 20 years, has responded well to conservation interventions, such as restocking, that has seen its wildlife return and habitat restored. Born Free and Kenya Wildlife Service (KWS) conducted a survey in 2016 and estimated that as many as 79 lions may be living in or around Meru National Park. However, as human populations have expanded and moved into wildlife dispersal areas around the Meru Conservation Area to farm, lions predate livestock, and are therefore increasingly at risk of retaliatory killings. Livestock overgrazing degrades the natural environment – a particular problem in Kora National Park, which is not so well protected – affecting both prey species and lions. The results of the survey formed an important baseline for monitoring the lion population as our future conservation actions were implemented.

Our support

Born Free funds, implements and manages this programme, in collaboration with KWS.

Activities in 2018–2019

The Born Free Kenya Pride of Meru field team continued the process of identifying, monitoring and collecting data on the lion population of the Meru Conservation Area. These data are improving our understanding of the lion's population status (abundance, distribution and threats). Dr Hans Bauer of WildCRU, University of Oxford, visited the team and provided them with advanced training in lion tracking and monitoring, which included the use of a new lion database that is currently being rolled out in key lion sites across Kenya. With the finalisation of our Kenya strategy, a three-year workplan was established which focuses on gathering detailed data on the status of lions, reducing human–wildlife conflict and livestock incursions and acquiring a greater understanding of sustainable rangeland management. At the end of this year, Dr Caroline Ng'weno was recruited to lead the Pride of Meru programme. With a PhD and over 10 years' experience, her expertise in studying and conserving large carnivores and their prey will be a huge advantage to the team and we are excited to see how the programme develops under her leadership.





KENYA, EAST AFRICA

Amboseli Trust for Elephants – Tier 2

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The programme

The Amboseli Elephant Research Project (AERP) is the longest-running study of wild African elephants in the world. For over 46 years, the Amboseli Trust for Elephants has worked in the Amboseli Ecosystem (including Amboseli National Park and the surrounding conservancies) to document the life histories of the 3,428 elephants living there. The AERP has provided unparalleled insights into the social organisation, behaviour, demography and social dynamics of savannah elephants, as well as cognition, communication, genetics and human–elephant interactions. Long-term studies are critically important for modelling the future of wildlife populations.

Our support

Born Free provides financial support to the Amboseli Trust for Elephants for the AERP.

Activities in 2018–2019

The vital and active monitoring team located and observed elephants across the ecosystem. The AERP team monitored elephant movements in response to rainfall, vegetation availability and surface water. The results of this research are key for modelling elephant movements and monitoring the vegetation and habitat of Amboseli. Tough ecological conditions pushed elephants and livestock into close proximity, but the team did not observe any elephant deaths as a result of human–elephant conflict. The continual monitoring of population dynamics by the team served to develop a mechanistic model to forecast future population dynamics in response to climate change and alternative management scenarios. The team also monitored the habitat in the ecosystem and noted a loss of woodlands in the areas extending from Amboseli and the surrounding conservancies, possibly due to overgrazing by livestock and exploitation for charcoal. Through constant monitoring, the AERP team will continue to contribute vital information for the protection and management of elephants in Africa.





ETHIOPIA, EAST AFRICA

Ethiopian Wolf Conservation Programme – Tier 1

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The programme

Born Free has supported the Ethiopian Wolf Conservation Programme (EWCP) since 1995. EWCP is critical; it is the only conservation initiative focused on the protection of Ethiopian wolves. Ethiopian wolves are listed as Endangered on the IUCN Red List. They suffer from habitat loss, disease and persecution and there are only thought to be about 500 individuals surviving in five populations across Ethiopia, making it one of the rarest species of canid in the world today.

The goal of EWCP is the conservation of the Ethiopian wolf and its afro-alpine habitat by counteracting threats to the survival of the wolves and promoting the conservation of afro-alpine ecosystems. Work is centred on research and monitoring wolves, threats to their survival and the use of afro-alpine resources; disease prevention and control (directly benefiting the community as well as the wolves); community education and sustainable livelihoods; habitat protection support and wolf population management; and capacity building, including in-country and international training of Ethiopian nationals.

Our support

Born Free is a significant funder of this programme, while EWCP leads on implementation and management.

Activities in 2018–2019

EWCP's long-term monitoring and research project continued to monitor packs across their range, noting that the Ethiopian wolf population is recovering from a loss in their population between 2016 and 2017, due to a successful breeding season. Additionally, the team made an exciting discovery that females were dispersing further than anyone expected (see box). The Bale Mountains team followed more than 30 packs, recording new litters in almost every family and high survival among last year's pups. EWCP teams monitored all other populations and kept an eye on isolated families in small habitat patches and packs that were not previously known in remote areas. EWCP monitors detected a rabies outbreak in one small population, allowing a rapid vaccination response, which the pack responded well to. Using artificial intelligence, EWCP modelled disease outbreaks in order to predict the outcomes of alternative interventions. These models will contribute to the understanding and success of controlling a disease outbreak. Funding has now been secured for a three-year plan that includes oral vaccinations of Ethiopian wolves across the species range, and capacity building to engage local governments in disease control.





ETHIOPIAN WOLVES

- > Ethiopian wolves live in the highlands of Ethiopia and nowhere else: an estimated 500 survive in the wild in five populations.
- > EWCP started 30 years ago and now employs over 50 people.
- > An Ethiopian wolf family can have as many as 15 animals but only the dominant female breeds.
- > The longest dispersal event is that of a female, vaccinated in 2015 and presumed dead, which in 2019 reappeared in another pack 30km away.

SUDAN AND ETHIOPIA, EAST AFRICA

Lion surveys in the Dinder–Alatash Transboundary Ecosystem – Tier 2

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The project

In 2016, a joint expedition organised by Born Free and WildCRU and led by lion biologist Dr Hans Bauer, confirmed the presence of a lion population in a huge, remote, and little-known area that stretches across Dinder National Park in Sudan, and Alatash National Park in Ethiopia. The lions here are under threat from livestock encroachment, poaching and habitat loss. The project intends to fill an existing knowledge gap of national and international significance with a view to safeguarding this population in the long term.

Our support

Born Free funds the field activities of this project.

Activities in 2018–2019

Born Free supported a mission to fit three lions with satellite collars, in order to better monitor their movements. However, due to their skittish, unhabituated nature, the team was unable to capture and collar any lion. Lion images were captured on camera traps, and in light of the challenges associated with collaring, future missions will focus on surveying the availability of prey species and other wildlife in the area, to obtain further ecological knowledge on the suitability of this landscape for lions and its potential to support a recovery in the population. The findings from these surveys will inform future conservation actions.





NIGER, WEST AFRICA

Giraffe Conservation Foundation – Tier 2

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The programme

The West African sub-species is listed as Endangered on the IUCN Red List. Once widespread across the West Africa region, their numbers declined and in the 1990s there were only 47 individuals surviving in south west Niger. This decline has been the result of habitat loss through expanding agriculture and logging, human–wildlife conflict, and poaching for their meat, pelts and tails. The Giraffe Conservation Foundation (GCF) is the only NGO in the world that works exclusively on the conservation of giraffes. GCF has been instrumental in ensuring the survival of the West African giraffe with support from the government of Niger and other partners, and currently the giraffes are recovering in numbers. Unfortunately, their persistence as just one population makes them especially vulnerable; as their population has grown and individuals have dispersed some are thought to have crossed into Nigeria which lacks the protection afforded them in Niger.

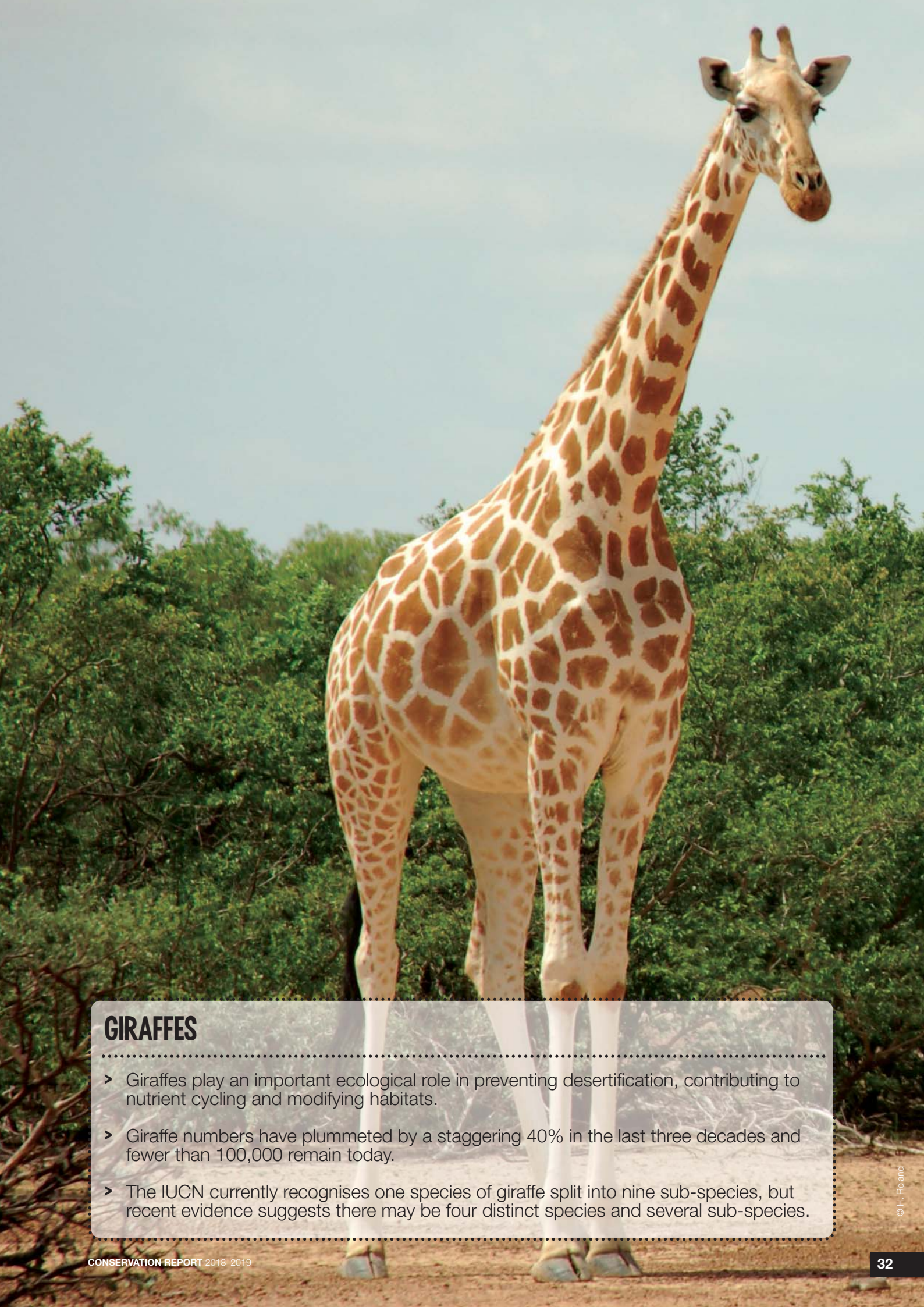
Our support

Born Free contributes financial support for giraffe monitoring, equipment and the implementation of annual giraffe surveys to estimate the size of the population.

Activities in 2018–2019

Born Free supported the provision of equipment to the Association for the Valorisation of Ecotourism in Niger (AVEN), which undertakes critical giraffe monitoring and helps protect the population, in partnership with GCF. Born Free also supported the first detailed survey of the Gadabedji Biosphere Reserve in order to assess its suitability for a giraffe re-introduction, and the establishment of a new population. As a result of this survey, in November 2018, GCF and its partners undertook the first re-introduction of eight West African giraffe into the Gadabedji Biosphere Reserve, an area from which they had been absent for almost 50 years. GCF also undertook an annual survey of West African giraffes using their new tool GiraffeSpotter (www.giraffespotter.org) and a capture-mark-recapture methodology. Results showed that the population, which had increased year-on-year, grew to an estimated 633 individuals, reflecting a rise of over 11% since 2017.





GIRAFFES

- > Giraffes play an important ecological role in preventing desertification, contributing to nutrient cycling and modifying habitats.
- > Giraffe numbers have plummeted by a staggering 40% in the last three decades and fewer than 100,000 remain today.
- > The IUCN currently recognises one species of giraffe split into nine sub-species, but recent evidence suggests there may be four distinct species and several sub-species.

DEMOCRATIC REPUBLIC OF THE CONGO, CENTRAL AFRICA

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Monitoring and protecting eastern lowland gorillas in Kahuzi-Biega

National Park – Tier 2

The project

Kahuzi-Biega National Park, a UNESCO World Heritage site in the South Kivu Province of eastern DRC, supports a significant population of Grauer's gorilla. From an estimated 17,000 gorillas in 1998, it is thought that the global population of Grauer's gorilla declined by 80–90% and is now estimated to number just 3,800 individuals, making it Critically Endangered on the IUCN Red List. After the Rwandan genocide in 1994 sparked a mass exodus of hundreds of thousands of Hutu refugees into DRC, the resulting ethnic tension led to two Congo wars in 1996 and 1998 and a chronic state of instability. Over 90% of Kahuzi-Biega was controlled by rebel militia, large mammals were indiscriminately killed, and timber and other natural resources were illegally exploited. At the end of the 1990s, the global price of coltan used in electronic components rose sharply with the global demand for products, leading to a boom in coltan mining in the region and an associated in-migration of labourers, including into protected areas such as Kahuzi-Biega National Park. Within a three-year period, the national park had lost much of its large mammal fauna including a significant proportion of its gorillas. Grauer's gorilla are still threatened by civil unrest, habitat loss, artisanal mining, poaching for the bushmeat trade and disease. Through close daily monitoring of the gorilla groups in the relatively safe Tshivanga highlands sector of the park, information on the number and composition of gorilla families, their distribution, ranging patterns and ecology have been collected by teams employed by the Congolese Institute for Nature Conservation. Daily monitoring and eco-tourism have safeguarded this sub-population.

Our support

Born Free financially supports daily monitoring and health surveying of 13 gorilla family groups that occur in the Tshivanga highlands sector of Kahuzi-Biega National Park.

Activities in 2018–2019

The gorilla population in the Tshivanga highlands sector of the park grew in 2018; two new infants were recorded, and a new individual immigrated into the Chimanuka family, bringing the total population to 163 individuals. New maps showing where the gorillas are ranging were produced, highlighting the impact of dominant male interactions on group ranging patterns and dynamics. A team of veterinarians assessed all 13 groups in the Tshivanga highlands and detected no disease, injuries or deaths. These activities contribute to the efficient management of this sector of the park and to improving the socio-ecological knowledge of Grauer's gorilla. They have also ensured stable or gorilla population numbers, thus safeguarding their long-term protection in this vitally important area.



GORILLAS

- > There are approximately 160,000 gorillas remaining in the wild.
- > Gorillas play an important role in dispersing seeds and creating and modifying habitats.
- > Gorillas have low reproductive rates, with females only giving birth every four to six years after a gestation period of eight to nine months. Declines in number are therefore of conservation concern, as it can take a long time for populations to rebound.
- > There are two species of gorilla, each further divided into two sub-species: the Cross River gorilla and the western lowland gorilla (*Gorilla gorilla* spp.), as well as the mountain gorilla and the Grauer's gorilla (*Gorilla berengei* spp.).

CAMEROON, CENTRAL–WEST AFRICA

Banyang–Mbo Wildlife Sanctuary – Tier 1

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The programme

BMWS (see page 17) has high levels of primate diversity, and supports many endemic species such as the drill and the Nigeria–Cameroon chimpanzee, the rarest and most range-restricted sub-species of chimpanzee with only 6,000–9,000 individuals remaining in the wild, as well as other species of conservation interest, such as the forest elephant. Chimpanzees and other primates in the region are highly threatened by bushmeat hunting and habitat loss. Born Free has been working at the sanctuary since 2016, conducting reconnaissance surveys to understand the abundance, distribution, and threats facing the chimpanzees and other primates of this region.

Our support

Born Free funds, implements and manages this programme.

Activities in 2018–2019

Research showed that the chimpanzees have experienced a dramatic decline since 2006, which is when the field team first worked together to estimate chimpanzee population size. The likely cause of the decrease is hunting, but evidence suggests that chimpanzees are being hunted for their body parts for fetishes and traditional medicine rather than for meat. Hunters carrying the hands and feet of chimpanzees have been apprehended inside the sanctuary, and there is a well-developed fetish market over the border in Nigeria. Further investigation is urgently needed, but due to ongoing civil conflict, all research and conservation interventions have had to be suspended until further notice. We are carefully monitoring the situation and keeping in regular contact with our field assistants on the ground, until we can resume our work.





THAILAND, SOUTH EAST ASIA

Freeland Foundation – Tier 2

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The programme

The future of the Indochinese tiger is precarious; while some individuals may persist in Cambodia, China, Lao People's Democratic Republic and Vietnam, the only remaining strongholds are in Thailand and Myanmar. Some scientists estimate that as few as 200 individuals remain in these two countries, with the sub-species classified as Endangered by the IUCN. The main threats to their survival are habitat loss (caused in part by illegal rosewood logging), both through direct poaching and of their prey, too. A population survives in eastern Thailand's Dong Phrayayen-Khao Yai (DPKY) Forest Complex, a UNESCO World Heritage Site and one of South East Asia's last contiguous tracts of forest. Born Free has been supporting the Freeland Foundation's efforts to protect this population through strengthened law enforcement, enhanced monitoring and community-based outreach since 2015.

Our support

Born Free supports the Freeland Foundation by providing funding for equipment, field expenses and staff salaries. Additionally, Born Free contributes funding towards the specially trained Hasadin anti-poaching ranger unit and the education awareness project.

Activities in 2018–2019

Due to the persistent efforts of the Freeland team to track and monitor the tigers in DPKY, research has shown that this small population is breeding and increasing in number. Wildlife surveys and tiger monitoring were carried out every month with the rangers and Freeland conducted on-the-job-training in camera trap use and data collection. Additionally, Freeland conducted an educational outreach programme to raise awareness about tiger conservation, which reached 3,590 school students from 22 villages. Special attention was given to local communities on the Thai/Cambodian border where many poachers originate.



SUPPORTING PEOPLE THROUGH CONSERVATION

Conservation starts and ends with people. It is critical for local communities to have a feeling of stewardship towards their natural resources in order for them to understand and participate in conservation.

Once stewards of their surrounding wild spaces, people become empowered to govern their own actions, and can be critical partners in conservation, helping develop effective interventions, and assuring the sustainability of conservation actions. By improving livelihoods, standards of living and well-being, we can provide the right conditions – essentially leading to rural stability – to enable conservation. Furthermore, building the capacity of nationals in the conservation of their native species and habitats helps consolidate effective conservation management. Finally, awareness raising and conservation education are crucial to the acquisition of long-term, sustainable systems of co-existence. Here we provide an overview of the numerous Born Free-supported projects that aim to improve environmental education, increase awareness of conservation issues, support health and well-being, enhance livelihoods and assist conservation leaders.

PROVIDING ENVIRONMENTAL EDUCATION

Environmental education addresses the importance and function of biodiversity, as well as the threats facing it, such as habitat loss and climate change. Education on these issues is critical to alleviate misconceptions, sensitise local communities and nurture future conservation leaders. Education programmes aim to raise awareness about conservation issues and affect a change in attitudes and behaviours that will have an impact at the local level. It is widely recognised as an essential component of conservation. As well as having its own education team in the UK, Born Free contributes funding towards conservation education carried out by like-minded organisations, such as our partners in the Satpuda Landscape, India (page 11), the Freeland Foundation, Thailand (page 37) and BCCP, Uganda (page 13). These programmes are important, as they are often the only forum through which members of local communities can learn about biodiversity, the environment and its importance. Here, we highlight the achievements of BCCP's pilot education programme.

The project

Part-financed by Born Free, BCCP designed a bespoke pilot education project to teach local primary school children about chimpanzees to complement adult sensitisation activities already delivered at village meetings and training sessions. The school education pilot aimed to increase environmental knowledge and promote greater understanding of chimpanzee behaviour and conservation among schoolchildren who share their daily lives with chimpanzees. Both pupils and teachers showed an increase in positive attitudes towards chimpanzee conservation after the education project was completed. Moreover, pupils' knowledge about soil, plants, trees and climate change also increased.

HEALTH CARE ENCOURAGES CONSERVATION

For many marginalised communities living in or near biodiverse landscapes, access to healthcare is a challenge. Unless basic needs, such as healthcare and clean water, are met, many communities are not in a position to consider environmental and biodiversity issues. The provision of critical healthcare builds trust and enlists support from people, as the organisation delivering the services is seen to consider the needs of the local human population instead of focusing solely on the needs of the wildlife or biodiverse habitat. In 2018–2019, Born Free continued its support of a well-established Mobile Health Unit working in Central India, as part of SLTP (page 11).

The project

Born Free supports the Nature Conservation Society of Amravati and the Satpuda Foundation's Mobile Health Units, which provide medical assistance to more than 100 villages in the buffer zones of six tiger reserves in Central India. This has built trust among the locals and enlisted their support in a range of conservation activities, which run simultaneously. The Mobile Health Units also provide health services to forest staff who protect the wildlife and tigers in the tiger reserves. From April to December 2018, the units constructed 229 health check-up camps and treated more than 9,000 patients in four tiger reserves.

SUPPORTING LIVELIHOODS

Throughout our project sites, Born Free and its partners employ local community members and nationals, and support traditional livelihoods that are sustainable and compatible with wildlife conservation. This gives people the opportunity to diversify their livelihoods and engage in conservation in a way that is seen as directly beneficial. For example, our Pride of Amboseli programme supports the livelihoods of pastoralists by reducing livestock depredation by lions, thereby supporting traditional livelihoods and enabling co-existence. SLTP (page 11), Pride of Meru (page 23) and BCCP (page 13) are some of the many programmes that support local livelihoods. Here, as an example, we summarise the efforts of the EWCP to support the livelihoods of local communities living around the Bale Mountains National Park, Ethiopia.

The project

Born Free supports EWCP's Alternative Livelihood Schemes, where following successful pilots, more than 150 families are now benefiting from sustainable micro-enterprises including honey production, fuel-saving stove production and the cultivation of native afro-alpine grasses for weaving and handicrafts. This year, alternative livelihoods schemes were successfully implemented in two new protected areas where Ethiopian wolves live. As a result, honey producers and producers of fuel-saving stoves benefit financially and act as role models to other community members. Additionally, many livelihoods beneficiaries are contributing directly to the conservation of their local natural resources in return. For example, Melkemu Retta, an experienced honey producer, is now a member of the Beehive Committee, which organises regular patrols in Erica forests near the beehives, and organises meetings to spread the concept that people can benefit from not harming their local environment. Owing to the success of the Alternative Livelihood Scheme, which has been running for the last three years, local governments and other NGOs are now actively developing plans to expand the beekeeping model in areas where market conditions are optimal.

SUPPORTING CONSERVATION LEADERS

Born Free is keen to recognise the incredible efforts made by conservationists across the world to protect threatened species. As such, we endeavour to support local conservationists from range states, and celebrate the achievements of outstanding practitioners. Each year, we fund the Virginia McKenna Award for Compassionate Conservation, and also provide a conservation grant through the Primate Society of Great Britain.

The Virginia McKenna Award for Compassionate Conservation

This £15,000 award provides support and recognition for outstanding individual conservationists and wildlife carers who put compassionate conservation and the welfare of individual animals at the heart of effective conservation action. In September 2018, Jackson Kabuyaya Mbeke, Director of the Gorilla Rehabilitation and Conservation Education (GRACE) in DRC, was awarded the sixth Virginia McKenna Award for Compassionate Conservation for his work with the Critically Endangered eastern lowland or Grauer's gorilla. GRACE is the only sanctuary in the world dedicated to Grauer's gorillas, which are considered one of the 25 most endangered primates in the world. The sanctuary cares for 14 orphaned gorillas rescued from poachers and rehabilitates them in its 39 acres of forest, with the hope that one day they can return to the wild. GRACE also partners with local communities to run education and conservation initiatives to raise awareness and protect a critical population of wild gorillas living in Tayna Nature Reserve. Having worked as a logistician, then as the Centre Manager, since its establishment in 2009, Jackson manages a team of 33 Congolese who operate the award-winning gorilla sanctuary. Next year, Jackson will lead the first census of Grauer's gorillas in over a decade across Tayna Nature Reserve to get an accurate estimate of the number of individuals that remain in one of the last sites for this imperilled great ape.

Primate Society of Great Britain grant

The Primate Society of Great Britain (PSGB) is dedicated to the advancement of primate research, conservation and captive care. The purpose of the conservation grants, worth £1,000 each, is to assist research that is beneficial to primate conservation and primate conservation education, conducted by those starting out in a career in primatology. In 2018, the PSGB awarded its Born Free-sponsored grant to Laura Suárez Ramirez, a young Colombian biologist, for her work with the Caquetá titi, also known as the red-bearded titi or the bushy-bearded titi, which is a Critically Endangered primate. The species, endemic to Colombia, was listed as one of the 25 most endangered primates in the world in 2018. It has an extremely limited distribution (4029km²) along the foothills of the Caquetá and Cauca Amazon-Andes, an area historically affected by the Colombian political conflict and illegal crop production. Threatened by habitat loss, the species has been pushed towards extinction. Laura was awarded the grant for her project to estimate the Caquetá titi's population density and group structure in Piamonte, Cauca, south west Colombia. The results of the surveys indicate that the population of this primate is low and that greater attention needs to be given to the species.

PROTECTING HABITATS AT ALL SCALES

Habitat loss and degradation is one of the greatest direct threats to wildlife across the world.

It is caused by the expansion of agricultural land – for both subsistence and large-scale agri-business – livestock production, deforestation, overgrazing, desertification, extractive industries like logging and mining, and infrastructure development. Habitat loss also exacerbates other threats, such as hunting and human–wildlife conflict, because it brings wildlife in closer proximity to people, opens up previously inaccessible wild spaces and reduces the availability of resources for wildlife. For 85% of species assessed on the IUCN Red List, the loss and degradation of habitat has been identified as a major threat. Much of our work is aimed at securing habitat for wildlife and fighting against destructive practices. Here we summarise a few of the projects that we support which are directly working to protect habitat.

FIGHTING AGAINST ENVIRONMENTALLY DESTRUCTIVE POLICIES

Our partners at the Conservation Action Trust (CAT) work hard through activism, to safeguard tiger habitat in India. Due to their persistent efforts, CAT in collaboration with other organisations were able to halt the creation of a Rio Tinto diamond mine in the Buxwaha Protected Forests, India, which would have destroyed key tiger habitat and impacted the movement of tigers between protected areas. Additionally, CAT has enhanced the protection of eco-sensitive zones, wildlife sanctuaries and national parks through legal interventions, campaigning and petitioning. In 2018–2019, CAT worked to halt the development of the Nagpur Mumbai Super Communication Expressway. The planned expressway proposed to link Nagpur, a city that sits in the middle of the Satpuda Landscape, with Mumbai, 701km away in western India intersecting several tiger corridors around five tiger reserves: Bor Wildlife Sanctuary, and Tadoba Andhari, Navegaon Nagzira, Pench, and Melghat Tiger Reserves. Despite fierce opposition from CAT and numerous international and local conservation organisations, the construction of the eight-lane highway is still underway and is scheduled to be completed in 2020. However, CAT and its partners were able to ensure that wildlife underpasses and other mitigation measures were incorporated in the design so that the movement of animals from one side of the road to the other could still occur. This is particularly important for tigers, whose population is dependent on landscape level dispersal. Additionally, the construction company will donate 2% of the cost of the 29.15km section passing through the eco-sensitive zones to the Melghat Tiger Conservation Foundation.

ON-THE-GROUND LOCAL HABITAT PROTECTION AND ENHANCEMENT

Since the 1990s, unprotected forest throughout the Hoima district of Uganda has been extensively logged and most forest has now been converted to farmland. After harvesting timber, villagers clear the forest to plant cash crops (especially tobacco) or rent out the land for farming. This extensive and rapid habitat loss has pushed the chimpanzees into more and more restricted areas, leading to escalating levels of crop raiding and conflict between villagers and chimpanzees. To tackle this issue, our partners at the BCCP grow, distribute and plant indigenous tree seedlings to reforest previously forested areas of land and also grow fast-growing, exotic species for woodlots to harvest for fuel. From April to August 2018, 175,400 tree seedlings were distributed to more than 600 registered farmers and planted in 61 villages. As these seedlings grow, they boost the natural tree cover and provide food sources for chimpanzees. With time, this will enable the chimpanzee to recover parts of its previous range.

FIGHTING POLLUTION TO SAFEGUARD HABITATS

In Tanzania, Sea Sense has been working hard to protect and maintain healthy marine habitats. In 2018, with support from Born Free, they led a beach clean-up with local fishermen, traders and community fishery managers, collecting an impressive 490kg of waste from 500 metres of beach. They also took part in a global civic-led event called “Let’s Do It!” that aimed to engage 5% of the world’s population in cleaning up their local environment. The whole Sea Sense team came together in Tanga, a town in Tanzania, to clean the beach at the Sahare Fish Market, removing 2,000kg of plastic.



USING TECHNOLOGY FOR HABITAT PROTECTION

As part of our predator-proof boma project in Amboseli National Park in Kenya (page 9), Born Free provides smart components: solar lighting units and energy-saving stoves to the boma owners. The energy-saving stoves reduce boma inhabitants' dependency on fuelwood, relieving pressure on a tree-scarce environment and protecting vital lion habitat. A survey conducted in 2017 demonstrated that energy-saving stoves reduce the firewood-fetching frequency of local households by about 50% a week, and also save on average 28% of wood fuel compared to the traditional three-stone stove. A water-boiling test conducted in 2017 revealed that energy-saving stoves save up to 26% energy/joules per session of cooking. The solar lighting units reduce pollution caused by hurricane lamps that use kerosene. Together, these units are also contributing to the global mission of mitigating climate change and global warming by reducing carbon emissions at the household level.

COMBATING THE ILLEGAL WILDLIFE TRADE

The illegal wildlife trade is big business, being the fourth-largest illegal trade after drugs counterfeiting, and human trafficking, and is worth an estimated \$19bn per year.

It involves organised crime groups who see wildlife as a low-risk, high-value commodity, and those involved are often simultaneously implicated in other crime networks. Driven by a demand for wild animals and animal body parts for food, pets, medicine, fetishes, trophies and decoration, this ruthless trade is causing an unprecedented decline in many species, from the more charismatic elephants, rhinos, tigers and pangolins, to the less well-known taxa such as reptiles, birds, amphibians and fish. It is illegal to hunt or capture protected species. However, there are weaknesses in law enforcement agencies, including the judiciary, that lead to a failure to arrest and prosecute wildlife poachers and traffickers. There is widespread corruption and poor governance, which hinders progress, and there is a lack of recognition of the seriousness of the illegal wildlife trade in many countries where wildlife holds little value. Born Free supports organisations with varied approaches to preventing trafficking, poaching and illegal hunting.

CAMEROON, WEST-CENTRAL AFRICA

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The Last Great Ape Organisation – Tier 2

The programme

The Last Great Ape Organisation (LAGA) is an innovative, award-winning NGO with a unique approach focused on wildlife law enforcement in Cameroon. LAGA's approach has been replicated in nine other countries (the Republic of Congo, Gabon, Guinea, Togo, Benin, Senegal, Uganda, Ivory Coast and Burkina Faso) linked together under the Eco-Activists for Governance and Law Enforcement (EAGLE) Network. The network fights to improve the implementation of national and international environmental legislation through a programme of activism. With the consent and involvement of the wildlife authority, the network drives the direction of investigations, arrests and prosecutions and generates much-needed publicity on the issue through radio, local newspapers and social media. Born Free has been supporting LAGA since its initiation in 2002.

Our support

Born Free supports the implementation of LAGA's investigations.

Activities in 2018–2019

In 2018, LAGA's work led to the arrest of 36 significant wildlife traffickers and other criminals in Cameroon; this is equivalent to one trafficker arrested every 10 days. The investigations worked to combat ape trafficking and the illegal trade in ivory, big cat skins, pangolin scales and reptiles. This year, LAGA rescued two baby chimpanzees and two mandrills from primate traffickers and busted an international network of pangolin scale traffickers involving four countries (DR Congo, Central African Republic, Cameroon and Nigeria). This operation led to the arrest of six people and the seizure of 718kg. Seizures of pangolin scales and ivory accounted for over 75% of the total number of operations. The rate of imprisonment for arrested traffickers was 73%, an encouraging indication that LAGA's work to build effective law enforcement institutions, and to fight and expose corruption, is yielding results. These operations act as strong deterrents for future would-be wildlife criminals, and they ensure that the confiscated wildlife and animal body parts will not enter the market to satisfy and stimulate demand.



INDONESIA, SOUTH EAST ASIA

The International Rhino Foundation – Tier 2

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The programme

Since 1993, the International Rhino Foundation (IRF) has been conserving the world's five rhino species: the white rhino (Near Threatened), the greater one-horned rhino (Vulnerable), the black rhino (Critically Endangered), the Javan rhino (Critically Endangered) and the Sumatran rhino (Critically Endangered). Rhinos are threatened by poaching, habitat loss and fragmentation, human–wildlife conflict, political conflict and isolation effects. Fewer than 80 Sumatran rhinos survive in the wild, with three populations on Sumatra in Indonesia in Way Kambas, Bukit Barisan Selatan and Gunung Leuser National Parks. In addition, there are a handful in central Kalimantan. Poaching for their horns still remains a threat, exacerbated by small population effects, human encroachment and disturbance. In addition, there are risks to their survival caused by catastrophic events such as tsunamis. The situation is even more critical for the Javan rhino, where only one population remains in Ujung Kulon National Park, Indonesia's first UNESCO World Heritage Site. This site is the largest remaining tract of lowland tropical forest on the island of Java and supports an estimated 67–69 Javan rhinos.

Our support

Funds raised through the Remembering Rhinos fundraising campaign in 2017 supported the conservation of Sumatran and Javan rhinos.

Activities in 2018–2019

In Java and Sumatra, Born Free supported Rhino Protection Units (RPUs), implemented by Yayasan Badak, IRF's local NGO partner in Indonesia. RPUs are highly trained, four-person anti-poaching teams that intensively patrol the parks, safeguarding the rhinos. Their presence deters would-be poachers. Additionally, the RPUs monitor the rhinos by collecting direct and indirect signs such as observations, footprints and feeding signs. In 2018, no Sumatran or Javan rhinos were known to have been poached. Additionally, the Sumatran RPUs identified mammal poaching (primarily deer), illegal logging, illegal fishing or bird hunting, and instances of encroachment. In each instance, the Sumatran and Javan RPUs protected rhino habitat by documenting evidence, destroying illegal equipment (including snares, bird nets and fishing traps), and driving encroachers out of the park. Whilst the Sumatran rhino population continues to decline due to isolation and breeding issues, camera trap images show that there has been a 10% increase in Javan rhino numbers.





INDIA, SOUTH ASIA

Rhino Research and Conservation Aaranyak – Tier 2

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The programme

The greater one-horned rhino is listed as Vulnerable on the IUCN Red list, with an estimated 2,970 individuals surviving in India and 645 individuals in Nepal. They are threatened primarily by poaching, habitat loss, human–wildlife conflict and invasive weeds, which are unpalatable to rhinos but outcompeting native plants. In Assam, eastern India, Kaziranga National Park, Rajiv Gandhi Orang National Park, Pabitora Wildlife Sanctuary and The Manas National Park are strongholds for the species. The Rhino Research and Conservation Division was launched in 1994 to address the conservation challenges that the greater one-horned rhino faces in Assam. A wide range of initiatives are implemented by the division, including conservation awareness and education and Village Defence Patrol groups.

Our support

Funds raised through the Remembering Rhinos campaign in 2017 supported the conservation of the greater one-horned rhino.

Activities in 2018–2019

Forest guards act as protection for the rhinos in Assam and their work is essential for their survival. Born Free provided funds to purchase new field equipment, such as shoes and sweaters, to help 159 forest guards deliver their duties in difficult terrain and weather conditions. Communication is also essential for this kind of work and a wireless communication network is an important tool to enhance vigilance and share key information. Born Free supported the purchase of 20 new radios and two base stations in Pabitora Wildlife Sanctuary. In addition, 10 high power search lights were provided, and all 159 forest guards received additional training through a workshop in association with the Range Forest Office of Pabitora Wildlife Sanctuary and the Divisional Forest Office.





RHINOS

- > Rhinos are an umbrella and keystone species, meaning they play an important ecological role in their ecosystem. They consume vegetation, promote plant diversity and recycle nutrients through their dung, thereby maintaining important habitats such as grasslands.
- > Born Free supports the conservation of three of the remaining five species of rhino: the greater one-horned rhino, the Javan rhino and the Sumatran rhino. In 2018, the last male northern white rhino died, leaving only two females and an unviable species.
- > Most rhino species lead largely solitary lives although home ranges sometimes overlap, with shared feeding grounds, water holes and wallows.

UTILISING TECHNOLOGY AND EXPERTISE FOR CONSERVATION

In our rapidly developing world, conservation needs to keep up by devising, promoting and implementing novel initiatives.

Conservation technology, in particular, is increasingly important in creating sustainable futures, enhancing our research capabilities and fighting poaching. Taking this a step further, Born Free has introduced Integrated Wildlife Protection (IWP), comprising a network of commercial companies, selected based on the quality of their technological products and services, and their drive to help provide integrated conservation interventions in the field. IWP further enables us to tackle conservation at a policy level, to ensure that necessary laws exist, and that they are ratified and implemented in order to support field operations. This integrated format ensures conservation projects do not operate in isolation from initiatives that have added value being deployed together. Here we highlight the top technologies we have utilised to enhance our conservation efforts.

THE DRAGONS

Anti-poaching patrols conducted by air are an efficient means of surveying vast areas and are often implemented in conjunction with foot patrols to guide rangers to the areas where assistance is most required. In 2018, Born Free teamed up with Chimera Aviation to promote and launch the use of autogyros – The Dragon – a gyroplane that is ideal for ranger patrols. Autogyros, featuring in the James Bond film *You Only Live Twice*, and used by the military, are quiet, fly safely at low speeds, and can carry both a pilot and a passenger, as well as technical equipment. Costing the same as a standard 4x4, they are cheap compared to other aircraft and maintenance costs are also low; these are important factors in a conservation context where resources are limited. The Dragon is a cost-effective means by which projects can implement aerial anti-poaching patrols with the potential to transform the reach, intelligence and capacity of rangers on the ground.

CAMERA TRAPS

Camera traps are used in the Satpuda Landscape of India to monitor the tiger population as well as to observe incidents of conflict between tigers and people. For example, when the Corbett Foundation is informed of an incident of livestock depredation by the Forestry Department, it sends out a primary response team equipped with camera traps. They set up the traps with the aim of filming the predator, who is expected to return to the kill site to feed on the carcass. Camera trap images are then used to identify the species responsible for the attack. Some animals, such as tigers, can be individually identified by their unique stripe pattern, meaning that if two camera traps simultaneously capture each side of the animal, that individual can be repeatedly identified. This knowledge helps us to better understand the nature of conflict, so that mitigation work can be more effective. It also allows the response team to appropriately compensate the livestock owner for his or her loss. Camera traps are also used by the Indian government's National Tiger Conservation Authority for the regular monitoring of tiger numbers across the landscape.

REMOTE SENSING

Geographic Information Systems (GIS) is a tool used for mapping and visualising geographic and spatial data. GIS has a critical role to play in monitoring and analysing biodiversity, habitats and climate remotely and cheaply, because the data that are gathered and analysed using GIS inform conservation planning. This year, Born Free undertook a GIS mapping project to monitor the rate of increase in illegal settlements inside the Babile Elephant Sanctuary in Ethiopia and to assess the effectiveness of the protected area in safeguarding its resident elephant population. The work involved identifying and counting the number of houses inside the sanctuary in 2006, 2014 and in 2017. Results showed a significant increase in housing in the sanctuary during this period. Increased levels of settlement have exacerbated habitat destruction, poaching and human–elephant conflict, making this ongoing in-migration one of the most severe threats to elephants in the Babile Elephant Sanctuary. The results of this project will be published in 2020.



SATELLITE COLLARS

Satellite collars deployed on lions enable researchers to gain a greater understanding of lion movement patterns and pride composition. Satellite collars regularly and automatically broadcast the lion's location, and these data points are collated by researchers. In 2017, KWS, in partnership with Born Free, collared lions living in Meru National Park in Kenya. In addition, lions that have caused conflict elsewhere in the landscape are sometimes translocated into Meru National Park. These individuals were collared in order to better understand how they integrated with, or otherwise affected, the resident lion population. In 2018–2019, we continued to monitor collared individuals. We used the GPS data from these collars to produce updated maps of lion home ranges and ranging patterns, thus enabling us to better understand how lions use the Meru Conservation Area.

LOOKING AHEAD 2019–2020

Born Free is constantly evaluating and developing its conservation portfolio for maximal global impact. Here, we are excited to present Tier 2 projects that Born Free will be supporting in 2019–2020 in addition to our current work.

NATIONAL PARK RESCUE, ZIMBABWE

Tier 2

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Chizarira National Park, Zimbabwe, is particularly significant to elephants given its strategically important location in the Kavango-Zambezi Transfrontier Conservation Area (KAZA). KAZA spans five countries (Angola, Zambia, Zimbabwe, Botswana and Namibia) and is home to over half of Africa's remaining elephants. In 2016, the Great Elephant Census identified Chizarira National Park as the epicentre of the poaching epidemic in northern Zimbabwe. The elephant population was estimated at 750, down 75% since 2006, with over 400 elephant carcasses littering the park. National Park Rescue, a UK registered charity, aims to work with national park authorities to improve infrastructure, train and equip rangers, and ultimately rescue Chizarira, again making it a haven for wildlife.

Born Free supports a Community Rations Supply Scheme designed to feed park rangers with food bought from the surrounding communities and to eliminate ration hunting. This initiative reduces the significant cost to the Parks Authority of feeding the rangers and ensures that there is sufficient food to deter rangers from supplementing their diet with wild-caught game. It also creates a level of trade and interdependence between the park and the communities that surround it, boosting the local economy and reducing the impact on the game inside the national park. Additionally, Born Free is contributing towards The Chizarira Micro-economy Ranger Reward Scheme, involving a virtual currency, called Sables, which are rewarded to park rangers for high performance. Virtual currency is better than cash rewards, because its use can be restricted – Sables can be used to pay school fees, buy medicine or home improvements, thus directly contributing to ranger welfare – and its value can be linked to tangible conservation successes in the park.



ORANGUTAN FOUNDATION, BORNEO

Tier 2

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Orangutans were once widespread across South East Asia, but today are found on only two islands: Borneo and Sumatra in Indonesia and Malaysia. They are under severe threat from habitat loss, caused by environmentally incompatible economic development and the exploitation of natural resources. Mining, logging, palm oil development and associated infrastructure development has led to an estimated 80% loss in orangutan habitat in the past three decades. Orangutan numbers have severely declined, and Bornean, Sumatran and Tapanuli orangutans are all officially listed as Critically Endangered by the IUCN.

The Orangutan Foundation has been working for over two decades to protect orangutans and their critical habitat in Central Kalimantan, in Indonesian Borneo. They established the 761km² Lamandau Wildlife Reserve, to re-introduce rescued orangutans back into the wild. They contribute to the management and protection of the wildlife reserve, which supports many other threatened species. They also conduct scientific research, education and awareness activities, and capacity building among the local communities and with their local partners. They train fire-fighting teams to respond to forest fires, which are an increasing threat to orangutan habitat. To achieve long-term success, they ensure local communities who live alongside orangutans are involved and support conservation initiatives. They maintain a highly visible presence in the forests of Tanjung Puting National Park and Lamandau Wildlife Reserve via the construction and maintenance of guard posts and daily foot patrols, thus reducing the number of illegal activities. They also rescue, rehabilitate and release orphaned or injured orangutans such as Tintom, who you can adopt through Born Free (see <https://www.bornfree.org.uk/adopt-an-orangutan>). Born Free will be supporting the Orangutan Foundation by providing the funds required to run one of the guard posts and one orangutan post-release monitoring site, which helps to ensure previously released orangutans are successfully adapting to their new lives in the wild.





ORANGUTANS

- There are three species, the Bornean orangutan (*Pongo pygmaeus*), the Sumatran orangutan (*Pongo abelii*) and the Tapanuli orangutan (*Pongo tapanuliensis*).
- Orangutans play a vital role in dispersing seeds throughout the ecosystem, thereby creating and shaping habitats.
- 80% of orangutans live outside of protected areas, where they are in sharp decline as a result of habitat loss and hunting.

THE LAST HERD

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Very little is known about forest elephants, which live in West and Central Africa, compared to their savannah counterparts. Between 2002 and 2011, forest elephant populations plummeted by over 60% and lost 90% of their range. In the coming year, Born Free will launch a new forest elephant programme, The Last Herd, integrating two projects in West Africa (described below), with our forest elephant project at BMWS in Cameroon (page 17). This will enable Born Free to offer technical support to the constituent projects, and encourage learning and information sharing between projects. Hopefully, it will lead to the development of an overarching and co-ordinated forest elephant conservation effort in the West Africa region, where remaining forest elephant populations are particularly vulnerable.

GHANA

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In 2019–2020, Born Free will be funding a survey of forest elephant in the Bia Conservation Area (BCA) in south west Ghana to determine the size of the population. The BCA harbours the largest and most viable forest elephant population in Ghana. Due to widespread cash crop farming, in particular cocoa farming, human–elephant conflict and poaching represent key threats. Surveys are needed to provide accurate estimates of the population and distribution of forest elephants. Consequently, this project aims to determine the status of forest elephants in the BCA and provide the technical support to foster community conservation for the long-term survival of the species.

LIBERIA

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While there are no reliable national population estimates of forest elephant, Liberia is home to two of the three remaining large blocks of the Upper Guinea Forest, and therefore offers one of the best chances of survival for the forest elephant in West Africa. However, since efforts started in the 1980s, the development of conservation action in Liberia suffered as a result of more than a decade of civil war between 1989 and 2001. More recently, wildlife resources have become threatened by the exploitation of natural resources through logging and mining sectors, large-scale agri-business, a rampant bushmeat trade and poaching. Born Free will be supporting a countrywide survey of forest elephants in 2019–2020 led by Elephant Research and Conservation (ELRECO), a German NGO founded in 2017. ELRECO aims to implement the National Elephant Action Plan for Liberia, an initiative rolled out in many elephant range states by the Elephant Protection Initiative.



SUMMARY

This report can only scratch the surface of the incredible work undertaken by our teams and by the people and organisations that we support, given the diversity of species and issues that Born Free supports and addresses, as well as an impressive geographical spread across Africa and Asia. However, we have endeavoured to detail the activities, achievements and successes of Born Free and its partners during the year 2018–2019.

We present many successes, but unfortunately, there are always obstacles, the biggest challenge of the past year being ethnic and armed conflict. Our work at the Babile Elephant Sanctuary, Ethiopia and Banyang-Mbo Wildlife Sanctuary, Cameroon, highlights the challenges that conservation practitioners face in implementing conservation interventions in unstable areas. In some places, such as Ethiopia, ethnic conflict is chronic and has been occurring sporadically over many decades. In the south west region of Cameroon, a historically peaceful region, the emergence of civil conflict has come as a surprise to everyone invested in the region. The disruption caused by conflict to the implementation of day-to-day conservation activities is insignificant compared to the disruption that war wrecks on the lives of local people. With limited resources at our disposal, it is important that we invest in projects that are assured impact and that have the highest chance of success. Yet, with so many biologically diverse places supporting highly threatened species, but lacking stability, neither should we turn our backs on these places.

We look forward to continuing our important conservation work and expanding our support to protect threatened species and habitats, promote human–wildlife co-existence, add to knowledge bases, support conservation leaders and experts and tackle wildlife crime.

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